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**Understanding the influence of culture on the relationship  
between rewards and organizational commitment in Chinese  
business: A study of China Airline Co**

**Stuart Muress**

**2009**

**A Dissertation presented in part consideration for the degree of MSc International Business.**

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## Summary

This work examines the influence of culture on the relationship between rewards and organizational commitment in a Chinese business, China Airline Co\*. First the research gives an overview of the airline industry in China and highlights the significance of this research in a Chinese context. The literature review then evaluates existing literature on organizational commitment in the West and within China before the hypotheses are developed. Quantitative research was undertaken, in the form of questionnaires distributed to employees of China Airline Co and this data has been analysed. Finally, the conclusion and limitations of the study are presented.

In total 290 completed questionnaires were collected in this research. The results showed the importance of extrinsic and intrinsic rewards in forming affective organizational commitment in China. In particular, analysis of the influence of culture (collectivism) on this relationship between rewards and commitment yielded significant results. The research identified significant negative relationships, moderated by collectivism, between three variables: social support and affective commitment, autonomy and affective commitment, and career development practices and affective commitment. No significant relationships were found when collectivism interacts with two further variables: satisfaction with benefits and affective commitment, and working conditions and affective commitment.

The recommendations of this research for businesses in China are that it is possible to increase employee commitment to the organization by better understanding the relationship between rewards and organizational commitment. Indeed, by understanding the influence of an employee's collectivism orientation on this relationship, reward systems can be tailored so that organizational commitment is increased and employee turnover is reduced. This work is important as employee turnover increases costs and the turnover rate is comparatively higher in businesses operating in China than in the West.

\* The actual airline company in China wishes to remain confidential in the research.

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# Chapter 1 Introduction

## 1.1 Introduction

This dissertation examines the relationship between rewards and organizational commitment in a Chinese business, China Airline Co\*. In particular, it provides an analysis of the impact of cultural factors (collectivism) on this relationship in the Chinese context. Firstly the background to the research is provided. Subsequently background information on the Chinese aviation industry is highlighted. The literature review then evaluates existing research on organizational commitment undertaken in the West and also within China. Succeeding chapters detail the research methodology, data analysis, discussion and implications of the findings for management.

\* The actual airline company in China wishes to remain confidential in the research.

## 1.2 Research background

In human resources management, much attention is paid to the organizational commitment of employees and how this can be increased (Malhotra et al, 2007). There are clear benefits to organizations from having high levels of organizational commitment within the workforce and these have been widely researched (see Gamble and Huang, 2008). Indeed, studies in both Asia and the West have observed that the commitment of employees to an organization is related positively to a number of attractive work outcomes such as performance and job satisfaction; conversely employee commitment is observed to be negatively related to turnover intentions (see Meyer et al, 2002; Cheng et al, 2003).

Social exchange theory indicates that employees will increase their organizational commitment when the fulfilment of their individual needs by the organization meets their expectations (Haar and Spell, 2004). The 'psychological contract' between employer and employee (Rousseau, 1995) is the basis for this social exchange. Research indicates that these psychological contracts, which are based on the norm of reciprocity, play an important role in determining organizational behaviour (Garrow, 2004). The provision of rewards by an organization has been identified by previous empirical research as one of the major factors that strengthens the psychological contract between employee and employer (Eby et al, 1999; Meyer and Smith, 2000; Malhotra et al, 2007). Therefore,

according to the social exchange theory, if employees are rewarded by the organization for their work, they will reciprocate by displaying affective commitment to the organization.

In previous cross-cultural studies, cultural values such as collectivism have been shown to influence organizational outcomes (Earley, 1993). This research investigates the influence of collectivism on the relationship between rewards and organizational commitment in a non-Western context at China Airline Co. Previously only the work of Williamson et al (2009) has specifically examined collectivism as a moderator of this relationship. This research analysed the influence of collectivism on the relationship between rewards and affective commitment in the US, finding that collectivism moderates the relationship between two variables: employees' perception of pay and affective commitment, and between their perception of autonomy and affective commitment.

Apart from the recent work undertaken by Newman, Thanacoody and Hui (2009 forthcoming), little research has been undertaken into this aspect of human resource management practices in China – the influence of culture on the relationship between rewards and organizational commitment. This work will therefore extend the literature to the Chinese context using a sample of 290 employees from China Airline Co. The research analyses the relationship between a number of extrinsic, intrinsic and social rewards on affective commitment, and critically, the moderating effects of collectivism on these relationships. Furthermore, by better understanding these relationships and their effect on turnover intentions, the work will be of use to existing Chinese companies and other multinational enterprises when they are designing their reward systems to foster high levels of commitment in both individualistic and collectivistic oriented employees in China. Indeed, although multinationals have been investing in China for some years, they still face a considerable challenge understanding and managing their employees (Francesco and Chen, 2004). As intimated, one of the most serious of these challenges is employee turnover due to intense competition for skilled workers in the Chinese market (Wong et al, 2001; Gamble and Huang, 2008). Indeed employee turnover increases costs and the turnover rate is comparatively higher in businesses operating in China than in the West.

### **1.3 The purpose of this study**

The purpose of this study is to understand further the influence of culture on the relationship between rewards and organizational commitment. By better understanding this relationship, human resources management practitioners could, as indicated, develop more successful and tailored reward systems for their employees which will encourage greater organizational commitment. Indeed researchers believe that organizational commitment is affected by cultural differences between countries (Chen and Francesco, 2000; Glazer et al, 2004). In China there are higher levels of power distance and collectivism than in Western countries (Bond, 1996). Furthermore, interpersonal relationships and harmonious group loyalty are more important in China than in the West (Hui and Tan, 1996). Research also indicates that relationships between supervisors and their subordinates in China are more particular than in the West, whilst co-workers have closer relationships than their Western counterparts (Cheng et al, 2003; Chan et al, 2006). Therefore this study will examine how culture affects the relationship between rewards and organizational commitment, and how this affects turnover intentions, using a sample of Chinese employees of a large international airline, China Airline Co. This research will also allow us to understand whether the results of existing studies of the influence of culture on this relationship (Williamson et al, 2009) are generalisable to the Chinese context.

### **1.4 The structure of this study**

This research comprises five further chapters. Chapter 2 provides a background to the Chinese aviation industry, including details of the growth of the industry and the position of China Airline Co. Chapter 3 reviews the existing literature on organizational commitment in the West and within China. Specifically, the three component model, rewards and organizational commitment and culture are analysed under the framework of rewards and affective commitment. Several hypotheses are then developed using this framework.

In Chapter 4, the justification for the choice of quantitative methods is introduced. Furthermore, this chapter outlines the sample of participants, measures of variables, questionnaire design, measure validity and the procedure of the hypothesis test. Chapter 5 presents the data analysis and findings of the research. Using statistical tests in SPSS, the 290 responses to the questionnaire are analysed in detail. Finally, chapter 6 discusses the findings and implications of the research. Before

the conclusion of the research, the limitations of the work are outlined, and recommendations are made for further study.

## **Chapter 2 The Chinese aviation industry**

### **2.1 Introduction**

The aviation industry in China was chosen for study as it a large employer in the country and is continuing to recruit employees as the industry grows. Although passenger growth slowed to just 3 percent in 2008 due to the global economic downturn, for 2009, growth of 6 percent is expected (eturbonews.com, 2009). As intimated, the sector is undergoing much structural change as carriers transition their ownership through shareholdings from the state to the private sector.

Correspondingly, merger activity in the Chinese aviation sector has been significant recently, as state and city owned carriers seek synergies in a more competitive marketplace; China Eastern and Shanghai Airlines are two such carriers which are seeking to combine their operations in a bid to reduce costs and increase efficiency (wallstreetsurvivor.com, 2009).

Within the aviation industry, one of China's largest airlines, China Airline Co has been selected as the research candidate in which to study the relationship between rewards and commitment. Access to China Airline Co is facilitated by agreement with Mr Newman in the International Business division at UNNC. Specifically, a local Chinese student has a close relative in the senior management team at the airline and has agreed to assist in providing access for the research.

### **2.2 Chinese aviation market growth**

According to the Civil Aviation Administration of China, the Chinese government stimulus plan has spurred a 23.6 percent increase in domestic passengers between January and June 2009, compared to the same period last year (shanghaidaily.com, 2009). Whilst other world airlines have reduced fares and cut capacity, Chinese airlines have lowered their fares but have transferred excess international capacity to the domestic market. Therefore whilst domestic airfares are lower than in 2008, passenger volumes have increased substantially. Indeed at Beijing airport alone, domestic passenger volumes for the first 6 months of 2009 were 20 percent higher than the same months of 2008 (cctv.com, 2009). It is important to note however that these figures do not yet reflect the impact of Influenza A(H1N1) on demand for air travel in the Asian region.

Over the long term, forecasts by Boeing suggest that China's domestic air travel market will grow to five times its present size by 2026 and will be just over half the size of the North American market by this time. This outlook is also shared by Airbus which believes that the increase in the market by 2026 will lead to a demand for some 2650 new passenger jets, worth approximately 289 billion USD (allbusiness.com, 2009). Finally, in the next three years alone, aviation analysts forecast that China will require a further 5000 pilots.

### **2.3 The position of China Airline Co**

As one of China's most successful airlines, China Airline Co is an excellent research candidate in which to study the relationship between rewards and commitment. Based in the south of China, the airline operates domestic, regional and international flights. Since it started operations in 1989, China Airline Co has grown to serve 159 destinations in 27 countries and currently operates 330 aircraft (†, 2009) with hubs at Guangzhou and Beijing airports.

In terms of passengers carried, it is the fourth largest airline in the world and the largest in Asia, carrying some 57 million passengers in 2008 (†, 2009). It is also the largest airline in Asia in terms of fleet size. Furthermore, the organization has some 34,000 employees who work as ground staff, cabin crew and pilots based in 13 branches across China (†, 2009). The airline is owned by three separate groups: China Airline Co Holding (50.3%), Hong Kong and other non-Chinese investors (26.8%) and Chinese investors (22.9%).

In November 2007, the airline became the first mainland China airline to join a global airline alliance. Most recently, following the easing of transport restrictions between China and Taiwan, it was again the first mainland China airline to open a branch in Taiwan in January 2009 (†, 2009). The airline also has the highest safety award of any mainland China airline, achieving Five-Star Flight Safety from the Civil Aviation Administration of China.

† As China Airline Co stated that it wished to remain confidential, all web addresses relating to the company and global airline alliance have been removed from this research.



## **Chapter 3 Literature review**

### **3.1 Introduction**

The purpose of this chapter is to provide a review of the literature which relates to the concepts of rewards, culture and organizational commitment. Firstly the three component model is explicated, and affective commitment is defined. In the following section the concepts of extrinsic, intrinsic and social rewards are introduced. Literature pertaining to rewards and affective commitment is then critically reviewed. In the next section the cultural dimensions of individualism and collectivism are examined. The literature review then turns to address research which concerns organizational rewards, collectivism and affective commitment, and then addresses specific Chinese studies of organizational commitment. The last section of this chapter introduces the conceptual framework which, outlined from the reviewed literature, underpins this research. Based on the literature and using this framework, a number of hypotheses are then developed and presented.

### **3.2 The three component model**

The three component model of organizational commitment was developed from initial work by Allen and Meyer (1990); they suggested that it is possible to separate affective, continuous and normative commitment to the organization - each component of organizational commitment having different causes. Affective commitment relates to the emotional attachment that an employee feels towards the organization; continuous commitment pertains to the economic attachment that they have, in that it would be financially difficult for them to leave the security of employment. Finally normative commitment concerns the guilt or employee feelings that they ought to remain with the organization. Following up on this work in 1991, they proposed that the existing distinction of commitment as two components - attitudinal and behavioural should be moved to one which looks at three separate components of commitment - desire (affective), need (continuous ) and obligation (normative). Again they emphasised that each has different antecedents and different implications for employee behaviour in the workplace.

The model's use has been extended from the organizational to occupational based analyses of commitment. Indeed Meyer et al (1993) tested affective, continuous and normative commitment to the employees' occupation. They found organizational commitment to be still distinguishable and

distinct from measures of organizational commitment. Therefore occupational and organizational commitment contributes independently to predicting employee behaviour. More recently, research into students and nurses by Herscovitch and Meyer (2002) aimed to verify the scales established in previous studies. It was observed that commitment to a change is a better indicator of support for a change than organizational commitment. Critically, affective and normative commitment to a change is associated with higher levels of support for the organization than continuous commitment.

Finally, recent scholarship by Solinger et al (2008) was critical of the three-component model of organizational commitment. Instead, a new model based on standard attitude theory is proposed, on the basis that they perceive the three-component model as a specific model for predicting turnover, not as a general model of organizational commitment (as normative and continuous commitment are attitudes towards certain types of behaviour). Solinger et al (2008) suggest that the new model should have affective, cognitive and behavioural facets. However, this standpoint is not shared by other researchers and as yet the new model proposed has not been empirically tested. The shared focus on affective commitment by both the three component model and the new proposed model further legitimates the decision to focus on this particular aspect of organizational commitment for this research.

### **3.2.1 Affective commitment**

As intimated, affective commitment concerns the emotional attachment an employee feels to the organization and the extent to which the employee identifies with the organization's goals (Meyer and Allen, 1991). Affective commitment is the component of commitment that has been most widely researched. Indeed in the Chinese context, when compared to both continuance and normative commitment, affective commitment has been observed to correlate more closely with positive organizational outcomes including performance in the workplace and negative organizational outcomes such as employee turnover (Chen and Francesco, 2003).

### **3.3 Extrinsic, intrinsic and social rewards**

Research into organizational rewards identifies three main types of rewards that employees seek from their organization: extrinsic, intrinsic and social rewards (Malhotra et al, 2007; Williamson et al, 2009). Extrinsic rewards are rewards that the organization provides and are not derived from the

context of the job that the employee performs. Such rewards include compensation, fringe benefits and promotional opportunities. By contrast, rewards that arise from the content of the job itself are termed intrinsic rewards. Thus employees may feel rewarded through motivational characteristics of the job including job variety, autonomy and participation in decision making. Finally social rewards occur when employees enjoy interaction with other people in the organization. These rewards cover the positive interpersonal relationships with supervisors or co-workers which may be available to an employee in the organization environment.

### **3.4 Rewards and affective commitment**

Existing theory on affective organizational commitment suggest that it occurs when an individual employee believes that their continued attachment to the organization will make it possible for them to access rewards and therefore satisfy their needs (Malhotra et al, 2007). Indeed research suggests that extrinsic, intrinsic and social rewards are all important factors which influence the affective commitment of employees towards the organization (Angle and Perry, 1983; Eby et al, 1999; Meyer and Smith, 2000; Malhotra et al, 2007).

There are divergent opinions within the literature with regards to which form of rewards - extrinsic, intrinsic or social - are more strongly associated with affective commitment. Some scholarship suggests that extrinsic rewards are more important (Angle and Perry, 1983) as organizations have greater control over this type of rewards compared to intrinsic or social rewards. Other research presents a different standpoint, that intrinsic rewards are more powerful in determining the affective commitment an employee has to the organization (Malhotra et al, 2007). As indicated, there is little research at present into the relative importance of extrinsic, intrinsic and social rewards for the development of affective organizational commitment in Chinese businesses.

However despite this, there is still a significant body of research concerned with the relationship between rewards and organizational commitment. Indeed the first study into the relationship between rewards and organizational commitment by Hackman and Oldham (1976) developed a model, which was then tested extensively, specifying how employees become more committed to an organization. The interaction among three variables determined the output characteristics of their model: psychological state of individuals, characteristics of job and attributes of individual.

Since this initial research, a number of papers have been published which have continued to analyse the relationship between rewards and organizational commitment. Ogivlie (1986) followed up on Hackman and Oldham's (1976) research standpoint by suggesting that HRM practices have a direct influence on commitment. Previously demographics, job characteristics and personal attitudes had been thought to be the most important influence on commitment. This work suggests therefore that employers can modify aspects of their HRM practices and therefore affect employee commitment correspondingly. This understanding is supplemented by the work of Rizzo et al (1970) who undertook research into role conflict and role ambiguity in complex organizations. Neither role conflict or role ambiguity had been tested empirically as a problematic in complex organizations; Rizzo et al found that through testing the two constructs, that both conflict and ambiguity are identifiable and independent.

For Teas et al (1979), the line of research into role ambiguity was continued. Their study, using path analysis, indicated that performance feedback and influence in decision making was positively related to role clarity. In 1998 the research on rewards and organizational commitment was extended outside the North American continent as Buchko et al (1998) assessed whether the existing theoretical perspectives were applicable in a Russian context; they found that the theories developed in the US on organizational commitment were generally applicable. Further scholarship has developed and tested models to try and explain why employees may show affective commitment to organization. Indeed Eby et al (1999) found that intrinsic motivation is an important link in the relationship between job characteristics and work attitudes (particularly with regards to affective organizational commitment and job satisfaction). They also found that affective organizational commitment is particularly important as it this facet of organizational commitment that is related to turnover and absenteeism; as intimated, this is an important premise for this dissertation as it focuses on affective commitment.

The preoccupation with affective organizational commitment in particular, was continued in the 1999 study by O'Driscoll and Randall. This investigation in Ireland and New Zealand found that perceived organizational support is linked to affective commitment. They also note that perceived organizational commitment is negatively linked to continuance commitment. Employee satisfaction with both intrinsic, and to a lesser extent, extrinsic rewards is found to help predict affective (but not continuance) commitment. Meyer and Smith's subsequent paper (2000) found that employee views

of organizational support and procedural justice mediate the relation between HRM practice evaluation and affective and normative commitment. It confirmed that although HRM practices help to establish employee commitment, the effects are neither direct nor unconditional. This finding is significant as although this dissertation will analyse the relationship between rewards and organization commitment at China Airline Co, it must be emphasised that the findings, which will indicate steps that the organization could make to improve affective employee commitment, are no guarantor of the success of these recommendations.

In India, organizational commitment has been studied by Paul and Anantharaman (2004) who found that HRM practices, including employee-friendly work environments, career development opportunities, development-oriented appraisal and comprehensive training, have a significant positive relationship with organizational commitment. Their findings in India emphasise the importance of HRM practices in creating and increasing organizational commitment; therefore further commitment-oriented organization policies should be developed. Most recently Malhotra et al (2007) analysed employee perceptions of rewards (extrinsic and intrinsic) and the three components of organizational commitment (affective, continuance and normative) in UK call centres. Their findings highlighted the significance of both extrinsic and intrinsic rewards in developing all forms of commitment. In particular, as the research identified the antecedents of each commitment component, the findings are especially relevant for HRM techniques.

### **3.5 Individualism/collectivism**

Through his analysis of international differences in culture, Hofstede (1980) identified a set of four dimensions which vary across cultures: power/distance, uncertainty avoidance, individualism/collectivism and masculinity/femininity. Since this research was published, the dimension concerned with individualism/collectivism has been extensively studied as a cultural variable in management literature. Employees who are more collectivist in orientation are typified as being more willing to accept organizational goals over personal goals than their individualistic colleagues; it is therefore theorised that this leads to greater organizational commitment (Clugston et al, 2000; Wang et al, 2002; Foley et al, 2006). Indeed existing research supports this standpoint. A significant relationship between the collectivist orientation of an individual and their affective, continuance and normative commitment is found by Clugston et al, 2000. Similarly, Chinese employees are observed to exhibit a positive relationship between collectivist orientation and

affective commitment (Wang et al, 2002). Most recently, research by Foley et al (2006) analysed the relationship between horizontal (amongst co-workers) individualism/collectivism and perceived organizational support. They noted a significant positive relationship between collectivism and perceived organizational support, and a significant negative relationship between individualism and perceived organizational support.

However, as intimated, there has been little research which has investigated the moderating effects of collectivism on the relationship between rewards and commitment by employees to an organization. Attempting to address this issue, the study by Williamson et al (2009) examined the impact of an employee's individualism/collectivism orientation on the relationship between extrinsic and intrinsic rewards and affective organizational commitment. They found that the employees with a low collectivism orientation reported higher levels of affective commitment when they sensed that they had high levels of pay and autonomy. In contrast, when employees with a higher collectivism orientation believed that their pay and autonomy was low, they reported high levels of affective commitment. Therefore this research suggests that the relationship between rewards and affective commitment is positively mediated by individualism.

Scholars consider China to be a highly collectivist society (Earley, 1989), yet there is also evidence within the literature of a significant variability within the country along cultural values, including the dimension of individualism/collectivism (Traindis, 1995). Indeed research by Francesco and Chen (2004) confirmed this in China. It is therefore important to measure cultural values at the level of the individual employee, rather than undertaking a country-wide analysis. This research into China Airline Co will analyse the influence of culture on the relationship between rewards and organizational commitment at the level of individual employees in the airline.

### **3.6 Organizational rewards, collectivism and affective commitment**

Research has indicated that the cultural values of an individual employee influence their preferences towards certain forms of organizational reward (Yu et al, 2003). Recently Williamson et al (2009) confirmed that these preferences may lead to different job attitudes between employees with different cultural orientations (Williamson et al, 2009). Indeed, there is a substantial body of literature which is concerned with the relationship between culture, rewards and commitment. Cross cultural differences in the level of organizational commitment exhibited by employees were first analysed by Randall (1993). This work organized existing research into organizational

commitment outside of the USA and established a theoretical framework for the interpretation of these cross cultural differences. Hofstede's Value Survey Module framework is used by Randall on the basis that this adds coherence to cross-cultural studies of organizational commitment. This work was subsequently followed by Wagner's (1995) study of 492 college students. His findings indicate again that the key cultural construct – the employee's level of individualism or collectivism - influences cooperation in class groups. Other factors affecting cooperation are group size and the student's identifiability and sense of shared responsibility. The relationship between group size or identifiability and group cooperation was again further affected by the cultural constructs of individualism or collectivism levels; this underlines the importance of these cultural dimensions for research into organizational commitment.

The influence of individualistic or collectivistic cultures on performance evaluation and feedback sharing in an organization was tested by Bailey et al (1997). In their comparative study of the US, China and Japan, they found that like US respondents, Chinese respondents desire success feedback, but also desire failure feedback. It is also observed that both US and Japanese employees show more initiative than their Chinese counterparts in the organization. A further distinction is made in the literature between types of collectivism. Indeed Eby and Dobbins (1997) study US car workers and analyse individual and group collectivism. They find that individual collectivism is related to self-efficacy for teamwork, a need for social approval, and positive past experience working in teams. Group collectivism is found to be related to cooperative team behaviours. Finally, they observe that cooperative team behaviours are a mediator of the relationship between team collectivistic orientation and team performance.

The importance of understanding individualistic or collectivistic orientations of employees for HRM practices is underlined by the work of Ramamoorthy and Carroll (1997) which finds that individual-collectivism orientations of people potentially seeking jobs affects their preferences for alternative HRM practices. These alternative HRM practices include the areas of selection, performance appraisal, reward systems, career systems and employment security. It is concluded by this study that the effectiveness of the alternative HRM practices depends on individual-collectivism orientations. In turn, Kirkman and Shapiro (1997) have analysed the use of self-managing work teams (SMWTs) by multinational firms in their foreign affiliates. Again, the influence of culture is found to be significant in the affect that it has on employee organizational commitment. Indeed the

study identifies cultural values which might affect employee acceptance of, or resistance to, self-management and team-related work practices. The effectiveness of SMWTs is therefore dependent on the extent to which organizations manage cultural resistance to the teams.

The effects of individualism and collectivism on employee creativity have been studied by Eisenberg (1999). Acknowledging that rewards have sometimes been found to increase creative performance, but in some situations are observed to be detrimental to it, the study looks at cross-cultural differences in individualism-collectivism between the US and Japan and the moderating effects that the differences in these countries have on creativity and innovation. Eisenberg proposes, with respect to creativity, that organizations in individualistic and collectivist societies differ on: the effects of rewards on intrinsic motivation, effects of in-group versus out-group controlled rewards, effects of group vs. individual based incentives, reactions to in-group and out-group competition, and the effects of members' identification with the organization on their innovation efforts. His findings with respect to the first of these observations – the effect of rewards on intrinsic motivation – underline the importance of understanding the relationship between rewards and organizational commitment.

As intimated, the influence of culture on organizational commitment has also been researched by Clugston et al (2000). Their study tested whether components of culture, including power distance, collectivism, uncertainty avoidance and masculinity are related to employee's level of commitment. They found that firstly, power distance is related to normative commitment to the organization, supervisor and workgroup (all three foci). Secondly, uncertainty avoidance is related to continuance commitment to all three foci – organization, supervisor and work group. Finally, they observe that collectivism is related to workgroup commitment across all bases of commitment – affective, continuous and normative.

Continuing their existing research, Ramamoorthy and Flood (2002) studied 402 employees from 11 technical and financial services firms. The research finds that individualism/collectivism orientations affect employee attitudes and behavioural intentions. Specifically, the findings suggest that the competitiveness dimension of individualism/collectivism affects the relationship between equity perceptions and obligations towards teamwork. Furthermore, the solitary work dimension of individualism/collectivism is observed to affect the relationship between equity perceptions and



career intent, and equity perceptions and obligations towards teamwork. Interesting interactions between equity perceptions and individualism/collectivism dimensions are noted, such that varying levels of equity perceptions are associated with different effects on employee attitudes and behavioural intentions depending on the level of individualism or collectivism orientations of the employee. Finally, the researchers note that, contrary to the hypothesised direction, the solitary work preferences dimension of individualism/collectivism is positively related to organizational commitment. This research into China Airline Co will assess whether employees exhibit greater organizational commitment when working alone or working in groups.

Indeed, in the Chinese context, research by Wang et al (2002) looks specifically at the use of collectivistic orientation as a predictor of affective organizational commitment. The study of 510 employees in two Chinese organizations confirms that collectivist orientation is a significant predictor of affective organizational commitment when other factors are controlled. The controlled factors include the employees' specific organization, organizational tenure and pay satisfaction, as well as their age, sex and educational level. Further scholarship has emphasised that HRM must also understand employee acculturation levels, rather than assume cultural differences based solely on ethnicity. Thus Gomez (2003), in her study of Hispanic MBA students in the USA finds that less acculturated MBA students (those who had less exchange of culture) were more collectivist than their counterpart highly acculturated Hispanic or Anglo-American MBA students. Acculturation was not found to be related to individualism. Significantly, a difference in job attributes was observed by Gomez, with a preference for contextual job attributes by MBAs with collectivistic values, but a preference for task related job attributes by MBAs with individualistic values. As intimated, the conclusion of her research is that it is important to understand an individual's acculturation level and their values, rather than only using ethnicity as a basis for understanding differences. In the context of HRM, this means that managers with diverse workforces in the US or globally should try to understand employees' individualistic/collectivistic values before they implement changes to job design, as these will impact correspondingly upon employee commitment to the organization.

The influence of socialization and culture on organizational performance has been studied by McMillan-Capehart (2005). Her research found that in a collectivistic organizational culture, which may be the prevailing culture found in China Airline Co, that in order to benefit from the positive characteristics associated with employee diversity, which include creativity, productivity and

problem solving, the organization should implement individualized socialization tactics. This, it is suggested, should help the organization to avoid the problems of diversity – especially lower job satisfaction and increased employee turnover – and means that the organization will benefit from employees' backgrounds and experiences, while promoting teamwork and a cohesive organization.

This research standpoint is supported by the work of Glazer (2006) in her study of the relationship between social support and culture. Confirming Beehr and Glazer's (2001) proposition that people in Asian countries receive the least supervisor emotional support, she finds that additionally, people in Europe, Anglos and Latin Americans perceive greater co-worker instrumental support than Asians. Furthermore, in agreement with Schwartz (1994), Glazer finds that conservatism versus autonomy culture values are important as they likely explain greater variation in social support mean scores. In particular, she finds that people in autonomous cultures reported greater supervisor emotional support and less co-worker instrumental support than people in conservative cultures. In respect of China Airline Co, it will be interesting to observe the extent to which her findings with respect to conservative cultures are applicable in the Chinese context – a society traditionally associated with conservative values. Finally, in Hong Kong, the effects of individualistic and collectivistic cultural values on employee perceptions of organizational justice and gender inequity have been researched extensively by Ngo et al (2006). The effects of cultural types on these perceptions of justice and gender inequity in the workplace were analysed in a study of Hong Kong solicitors. Using a theoretical framework of horizontal and vertical distinction within individualism and collectivism to predict the differences in employee perceptions on justice and gender inequity, Ngo et al found that horizontal-collectivism (amongst co-workers) has a significant positive influence on procedural justice. Similarly, vertical-individualism (between management and employees) is observed to have a significant positive impact on distributive justice. Both vertical and horizontal individualism have a significant positive impact on both perceived gender bias and perceived gender discrimination.

The necessity for HRM practitioners to pay attention to cross-national and cross-cultural tendencies in organizational commitment is emphasised by Tsui et al (2007), who in their summary review paper analyse the advances made in this research area over the last few years; they also highlight where research gaps continue in studies of organizational commitment. Indeed, reviewing the existing research on management (organizational behaviour) and national culture, seven recommendations are offered to address gaps in the research. Firstly, the group property of the

culture concept must be considered; secondly, cultural values should be consolidated – towards a configuration approach; thirdly, that it is important to include national differences beyond culture – moving therefore, towards a polycontextual approach; fourthly, cross level models are preferable; fifthly, construct validity must be ensured and research must move beyond back-translation and measurement equivalence (this is particularly relevant with regard to the questionnaires that this research will make use of); critically, their sixth recommendation is that research should ‘go native’ and that country-specific research is therefore preferable – this validates the premise of this research into China Airline Co. Finally, their seventh recommendation is that researchers should engage in long-term cross-national collaborations, so as to foster comprehensive time-series research.

Research suggests that the influence of culture on affective and normative commitment to an organization is less straightforward than previously thought. Indeed, Wasti and Can (2008) analysed affective and normative commitment to the organization, supervisor, and co-workers to assess whether collectivist values matter in forming this commitment. Their first study in Turkey confirmed that employees differentiate between affect versus obligation-based commitment towards the organization, supervisor and co-workers. However, the second study had more problematic research findings and failed to support the ‘cultural hypothesis’ (which argues that collectivistic values have a moderating influence on the relationship between person (local) commitments and organizational-level (global) outcomes). Instead the study indicated that commitment to the organization was predictive of organizational-level outcomes (e.g., turnover intentions), and commitment to the supervisor was predictive of supervisor-related outcomes (e.g., citizenship towards supervisor). These findings are taken into account when the hypotheses are formed later, as these hypotheses support a relationship between culture and organizational commitment. It will be important to understand therefore if these findings in Turkey are also apparent in the Chinese context.

Recently and of particularly relevance to this research, Siddle (2009) analysed the work of Gelade et al (2008) into means by which to build a committed global workforce; Siddle (2009) asked if what employees want in an organization depends on culture. As existing scholarship has suggested, cultural values may determine what employees value the most in their jobs. In order to remain competitive, it is widely acknowledged that global companies need to retain their top talent.

Assessing how best to motivate and satisfy a workforce that is diverse in both geographical location and cultural values, and consequently in what they need and want from their career, is a challenge for global companies such as China Airline Co. As Siddle notes, Gelade et al studied some 50,000 workers in 29 different countries to analyse the job aspects and components that influenced their affective organizational commitment. Hofstede's Model of National Culture was used to examine the survey responses – two dimensions in particular were focused on – individualism and masculinity. The first of Gelade et al's research strands focuses on individualism and collectivism. In an individualistic, as opposed to a collectivistic culture, they note that there tends to be a high concern for individual initiative, individual freedom and individual achievement. The US and Canada are particularly strong illustrators of individualistic cultures. In contrast, in collectivist cultures, consensual decision making, an emphasis on workplace harmony and belonging to the organization is more common. Indeed, in collectivist cultures like Peru, China and Iran they suggest that there is considerably less interest in taking individual acclaim for achievement or success within the organization. The second research strand into masculinity analyses whether performance can be characterized as being driven by, or nurtured by the influence of national culture. In countries which focus on material success such as Japan and Slovakia, and are therefore typified as masculine countries, the organization is likely to highly reward good performance, but in exchange, it demands that employees work hard. Sweden and the Netherlands are illustrative of more feminine cultures, where as the workplace encourages, rather than demands performance, there are smaller wage gaps between employees and ancillary benefits such as generous paternity leave are common.

The findings of Gelade et al's survey indicate that when employees from individualistic countries were satisfied with their opportunities for personal achievements, autonomy and ability to establish a work-life balance, the employees felt more commitment to the organization. In turn, for their counterparts in more collectivistic countries such as China, a greater level of commitment to the organization was felt when the employees were more satisfied with the provision of training, fringe benefits and general work conditions provided by their employer; critically, they were most committed to the organization when they felt that their skills were fully utilized in their employment. Of note is the research finding that satisfaction with the job did not necessarily translate into a significant increase in organizational commitment; thus employees in individualistic cultures were observed to be satisfied with the "collectivistic" aspects of their workplace (e.g. working conditions and training opportunities), but there was little impact on their feelings of commitment to their organization. Analysis of masculine job characteristics yielded a similar picture.

For employees in masculine cultures, even when they were satisfied with the feminine characteristics of their jobs (such as collaboration and team work relationships), there was little influence on their affective organizational commitment. But as expected, in masculine countries, employees who were satisfied with their personal achievements, position within the organization and opportunities for high earnings, felt higher levels of organizational commitment. In turn, in feminine cultures, higher levels of commitment to the organization were felt when the employees were satisfied with their relationships with management and cooperation levels with their colleagues.

As Siddle (2009) explicates, the research by Gelade et al has important practical implications for HRM. Critically, it is important for the companies to note that, when the level of investment in time and resources to retain talented employees is so high, the best HRM practices for increasing affective organizational commitment and therefore retention of employees may be contingent on culture; this is the premise for this research into China Airline Co. They suggest, for example, that using training to improve team relationships may be a successful HRM strategy in a feminine culture where managers aim to improve employee commitment and retention; however, the same training in masculine cultures may have less success. The analysis by Gelade et al goes somewhat therefore to furthering an understanding in the field of HRM research as to the effect that cross-cultural differences have on the ability of management to establish a committed global workforce in which talented employees are retained. As indicated, their conclusion that cultural factors are particularly important for managerial consideration is the key research question to be analysed with respect to HRM practices at China Airline Co.

Finally, as discussed, recent research by Williamson et al (2009) has evaluated the interactive effect of collectivism and organizational rewards on employee affective organizational commitment. This study of racially diverse professionals in the USA analysed whether employees' cultural values influence the formation of commitment. As predicted, the findings show that there is a significant two-way interaction between the cultural dimension of collectivism and organizational rewards on employees' commitment. Their findings suggest the organizations may increase existing employees' commitment by managing the types of rewards offered to employees with different cultural values. This is the premise on which the hypotheses are based, building on Gelade et al's (2008) observation that culture is a key construct for consideration, Williamson et al indicate that it may be practicable

to distinguish employee rewards based on their cultural values. It will be interesting to note the extent to which China Airline Co should consider implementing such a reward system, acknowledging the contingent practical and bureaucratic difficulties associated with implementing such a diverse rewards/culture framework.

### **3.6.1 Chinese studies of organizational commitment**

Recognising the importance of understanding organizational commitment, there is a growing body of literature from Chinese scholars which considers organizational commitment in China. Indeed, the significance of organizational commitment for Chinese employees was highlighted by Wong et al (2001) in their study of data from two samples in the People's Republic of China and Hong Kong. The study aimed to understand the role of organizational commitment in affecting other attitudinal antecedents (e.g. job satisfaction and turnover intention) to employee turnover. The high rate of employee turnover is a substantial problem in managing Chinese employees in joint ventures in the People's Republic of China (PRC). Indeed organizations operating in the PRC face a decision whether to invest in better compensation systems and employee training/development if the employees will leave the company anyway. As Wong et al note, Chinese culture values loyalty, guanxi (personal connections) and pao (doing favours), so therefore in the long term, organizations will benefit if they foster organizational commitment in their employees. Indeed the findings of their research suggest that organizational commitment amongst Chinese employees has a much stronger effect on job satisfaction and the turnover intentions of employees than results from comparable studies undertaken in the West. The analysis underlines the importance of the effects of Chinese traditional values continuing into the modern Chinese work place and has consequent practical implications for organizations like China Airline Co operating in the country.

Similar research by Chen and Francesco (2000) evaluated the influence of cultural differences on employee demography, organizational commitment and turnover intentions. This study of 333 employees in the PRC looked at the main effect of demographics on organizational commitment and the moderating effect of education and gender on the relationship between organizational commitment and turnover intentions. Specifically they note that only position had a positive influence on organizational commitment; other demographic variables were found to have no main effect on organizational commitment. They also observed that the relationship between

organizational commitment and turnover intentions was moderated by gender, but not by education. Critically, the findings again emphasise that Chinese employees behave differently to their Western counterparts, due to the impact of traditional Chinese culture, especially guanxi.

Research undertaken by Chen, Tsui and Farh (2002) analysed the relationship between employee loyalty to the supervisor and their in-role and extra-role performance, and then compared this with their organizational commitment. Using two studies – the first of which utilised a loyalty to supervisor scale with five separate dimensions, and the second of which analysed the relationships between loyalty to the supervisor, organizational commitment and employee performance, Chen, Tsui and Farh concluded that loyalty to the supervisor was more strongly associated with both in-role and extra-role performance than organizational commitment. This has important implications for managerial practices in China as their findings indicate that employees exhibit greater commitment to their supervisor than they do to the actual organization. With respect to China Airline Co, this research will examine whether a similar finding can be observed of employee commitment to their supervisor taking precedent over their commitment to the actual organization.

Following on from this research standpoint, Chiu (2002) investigated if the form of economic ownership of the organization in the PRC affected employee commitment to the organization. By studying 300 employees in Shanghai from six different enterprises, he was able to examine the difference between state and non-state sector companies with regards to work dynamics. Chiu found that job attitudes and employee behaviours are affected by workplace dynamics, and he then analysed the relationship between workers' perception of the workplace and organizational commitment after the economic reforms in the PRC. Of note are the differences he identified between employees in the state and non-state sectors with regards to their demographic characteristics, organizational perceptions and commitment. As indicated, China Airline Co is a partially state-owned airline, so these findings are of particular interest to this research and indicate that affective organizational commitment is not solely predicted by reward systems, or moderated by differences in cultural values; instead, further factors, including economic ownership of the organization may also be significant.

Indeed, Wang (2004) also analysed the organizational commitment of Chinese employees in state-owned enterprises in comparison to that of foreign-invested enterprises. Noting that existing

research had tended to transpose existing Western methodology to a Chinese context, he developed a questionnaire which incorporated items drawn from previous Chinese and Western research. The main findings of this research were that employees in state-owned enterprises were observed to have higher levels of active continuance commitment and passive continuance commitment than their counterparts in foreign-invested enterprises. However, the employees in state-owned enterprises had lower levels of value commitment than those in foreign-invested enterprises. Again, the main implications of the research are that HRM practitioners should acknowledge the form of ownership of the organization when deciding on means by which to encourage organizational commitment by employees.

Research examining the success of foreign invested enterprises in China was undertaken in 2003 by Scott et al. Specifically, they analysed the receptiveness of Chinese employees, in US enterprises operating in China, to working in a participatory organization environment. Their study found that there was evidence for a model in which job satisfaction moderated the relationship between elements of the participative work environment and the employee's willingness to cooperate with co-workers and their organizational commitment. The participative work environment depended on the tasks performed by the employees, their workgroup relationships and the type of decision making processes used by the organization. Similarly, as intimated, variations by the employee in the degree of commitment to the organization or to the supervisor may be significant in the Chinese context. To this effect, Cheng et al's (2003) paper analysing organizational commitment and supervisory commitment in China is important. The findings of this work, which studied 538 subordinates and employee supervisors in Taiwanese companies, confirmed that organizational commitment and supervisor commitment are both important in the China. Chinese characteristics including the compatibility principle and guanxi are offered by the authors as an explanation for these findings.

The applicability of the three-component model of organizational commitment, incorporating all three strands of affective, continuance and normative commitment, in the Chinese context has been assessed by Cheng and Stockdale (2003). In their study of 226 Chinese employees in 6 foreign companies in China, they found that the three component model has a reasonably good fit as each of the antecedents of affective, continuance and normative commitment associated most strongly with their respective scales. Job satisfaction in the Chinese sample was predicted by affective and



normative commitment; furthermore, all three components of commitment were predictors of employee turnover intentions. This finding verifies the approach used in this research to use affective organizational commitment as a predictor of turnover intentions. Finally, the authors conclude that compared with studies undertaken in Canada and South Korea, normative and affective commitment were higher in the Chinese context. This research standpoint, analysing the three components of commitment in China, was further developed in 2003 by Chen and Francesco as they evaluated the relationship between employee performance and the three components of commitment. They observed, in a study of 253 supervisor-subordinate relationships in the PRC that affective commitment was positively related to in-role performance and 'organizational citizenship behaviour'. However continuous commitment was found to be negatively related to 'organizational citizenship behaviour' and not associated with in-role performance. In the context of China Airline Co, their finding that affective organizational commitment influences the performance of the employees is significant, as it emphasises the importance for HRM practitioners in the airline to develop organizational commitment to improve employee performance.

The importance of collectivism as a cultural attribute moderating the relationship between organizational commitment and employee performance in China was assessed by Francesco and Chen (2004). Notably they observed that more typically collectivist employees exhibited a weaker relationship between organizational commitment and both in-role and extra-role performance. The employee's feelings of obligation to the organization were offered as a reason for this weaker relationship, as collectivists were more likely to view the organization as a group to which they belonged. Indeed, the support offered by the organization to the employee as an influence on organizational commitment was also investigated by Foley et al (2006). Using a horizontal and vertical distinction within individualism and collectivism (therefore incorporating four separate cultural types), as a theoretical framework to predict differences in organizational commitment and job satisfaction, they studied 514 solicitors working in law firms in Hong Kong. Horizontal-individualism was found to have a significant negative effect on organizational commitment, whilst horizontal-collectivism was found to have a significant positive effect on organizational commitment. Both horizontal and vertical collectivism were found to have a significant positive effect on job satisfaction. Finally, all these relationships were observed to be moderated by the level of perceived organizational support. In the context of China Airline Co, their findings that cultural differences in levels of individualism and collectivism are distinguishable horizontally and vertically within the

organization, are significant, not least because it will lead to differences between employee cultural relations with their peers (horizontally) and management (vertically).

Further organizational characteristics have also been noted to be significant in their affects on employee commitment. In particular, Fryxell and Dooley's (2004) research into the role of managerial trustworthiness in a telecommunication firm in China which was undergoing restructuring, found that employees' levels of trust in the management critically affected their affective organizational commitment. Continuance commitment was most affected by employee feelings of managerial trustworthiness.

Following on from the work of Chen, Tsui and Farh (2002), Hui et al (2004) asked specifically whether workers relate to the organization or to people in China. Their study of 605 matched cases of employees and their immediate supervisors in large, state-owned (but reformed) organizations, analysed the importance of organizational commitment and personal relationships for Chinese workers' affective commitment to the organization and their 'organizational citizenship behaviour'. Of particular note is the finding that organizational support was related to affective commitment more strongly than to organizational citizenship behaviour. However personal relationships were also found to relate similarly to affective commitment and organizational citizenship behaviour. The main conclusion of their research was that assumptions regarding employee-employer exchange relationships in China (and in other societies undergoing transition) therefore need to be revised. Indeed, more recently, with respect to foreign-invested companies in China, Wang (2008) analysed the emotional bonds between supervisors and co-workers and their relationship to organizational commitment. Some 1160 industrial employees were studied to investigate how their organizational commitment was affected by this emotional bond; it was found that both the emotional bond with the supervisor and co-workers was related to normative commitment and active continuance commitment. Furthermore, passive continuance commitment was predicted by emotional bonding with co-workers, whilst the antecedent of affective and value commitment was found to be the emotional bond with the supervisor. Thus this research emphasises the importance of personal relationships (such as *guanxi* or *pao*) in the link between the employee and the firm in the Chinese context. Although only 26.8% of China Airline Co is owned by Hong Kong and other non-Chinese (foreign) investors, there are contingent practical implications for their HRM system implied by these findings and other corresponding studies.

Using the research framework established by Chiu (2002) and Wang (2004), further research into the organizational commitment of Chinese employees in foreign-invested firms has been undertaken by Gamble and Huang (2008). The extent to which organizational commitment might vary between various cultures was problematised through their study of Chinese subsidiary stores of a British multinational retailer. Noting that organizational commitment by employees is thought to be critical to the performance of the organization, they concluded that the problems of labour turnover and retention in China, can, as in the West, be mitigated by increasing employee organizational commitment. Thus, as in Western management, organizational commitment contributes to retention; this is a key finding with respect to this research into China Airline Co, as it underlines the importance for HRM practitioners at the airline of finding means by which to reduce employee turnover.

A comparison between the UK and China is again drawn by the work of Chan et al (2006). This analysis of manufacturing workers in the UK and PRC found that employees have different levels of commitment to different foci – the organization, supervisor, co-workers and union. Organizational commitment and employee behaviour were found to be related more strongly when the constituent foci were matched. Interestingly, as the authors found no evidence of stronger person- or group-based commitment in the PRC compared to the UK, cultural differences between employees in the two countries did not affect organizational commitment.

Yao and Wang (2006) also showed the importance of affective commitment to the organization in collectivistic contexts. Indeed, using questionnaires, their study of 242 Chinese employees specifically analysed the effects of organizational commitment on employee turnover levels, rather than their attitudes or perceptions to the organization. Their findings emphasised the importance for HRM practitioners of using affective commitment as a predictor of employee satisfaction with the organization and therefore associated turnover intentions.

Finally, Leininger (2007) studied the current compensation and benefit trends in China, noting that in the previous year, average turnover rates in the mainland were 14.2 percent of employees, whilst at management levels the rate was even higher. Furthermore, he reports that a 2006 - 2007 study of

100 companies in China found that only 23 percent of employees were satisfied with their compensation and benefits. Also of note is his observation that turnover rates in the major cities remain about 13 - 15 percent and compensation is the main reason offered by employees for leaving the company. These findings are of particular interest with respect to this research into China Airline Co. Finally, Malila (2007) also emphasised that to foster long-term organizational commitment, it is important for companies like China Airline Co to 'build' rather than to 'buy' an effective and flexible workforce. To succeed in accomplishing this, Malila suggests that the companies should consider their overall rewards strategy which encompasses salaries, bonuses and also benefits, training and career development; indeed offering prospects of career development to employees is considered a significant retention factor in the country.

### 3.7 Conceptual framework

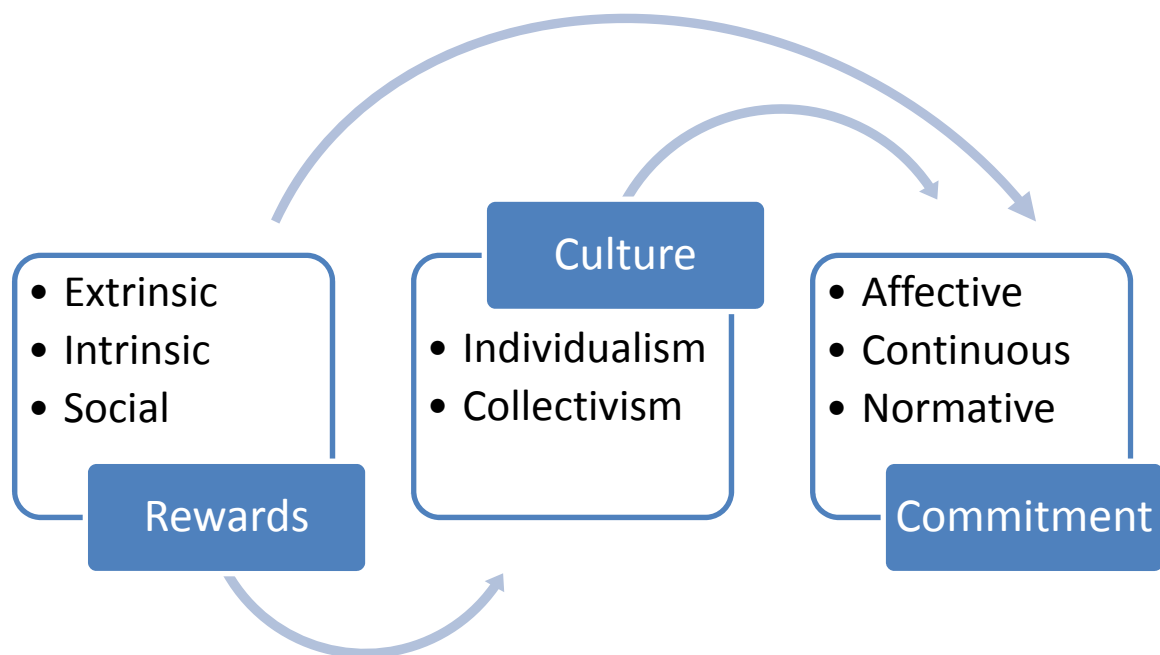


Figure 3-1: A model of the influence of culture on the relationship between rewards and organizational commitment

### **3.8 Hypotheses**

Based on the reviewed literature and using the conceptual framework detailed above, a number of hypotheses are developed in the following section.

#### **Extrinsic rewards**

##### **3.8.1 Satisfaction with compensation**

A positive relationship between satisfaction with compensation and affective commitment has been established by empirical research (Mottaz, 1988; Loscocco, 1990), however, conflicting results have been found in recent studies. Malhotra et al (2007) found no relationship between satisfaction with compensation and affective commitment, whilst Eby et al (1999) found a negative relationship. It is believed that in multinational enterprises in China where turnover has been shown to be high, perceptions of compensation will be positively related to affective commitment. Indeed, previous research has confirmed that compared to other organizational rewards, Chinese employees rank pay highly (Yu et al, 2003; Leininger, 2007). Furthermore research has also indicated that individuals with high collectivism are more likely to work together towards shared objectives, whereas those with low collectivism will place emphasis on individual benefits and economic rewards (Wagner, 1995; McMillan-Capehart, 2005). From this it is apparent that the level of pay provided by an organization may be more important to those employees with lower collectivism than those with higher collectivism. Therefore the relationship between perceptions of compensation and affective commitment will be significantly impacted by the collectivism orientation of the individual employee. The hypothesis can be drawn as follows, that employees with low collectivism will exhibit higher affective commitment towards the organization than those with high collectivism when they perceive that they are being well compensated by their organization:

**H1a:** Satisfaction with compensation will be significantly related to affective commitment.

**H1b:** Collectivism will moderate the relationship between satisfaction with compensation and affective commitment.

##### **3.8.2 Satisfaction with fringe benefits**

Employees with an attractive benefits package, Meyer and Smith (2000) suggest, may view their organization as being supportive, leading to increased affective organizational commitment.

However, despite the theoretical arguments that favour a relationship between perceptions of fringe benefits and affective commitment, recent research has produced conflicting results. A strong positive relationship between perceived fringe benefits and affective commitment, mediated through perceived support from the organization, was evinced by the work of Meyer and Smith (2000). However, no significant relationship was found between perceptions of the fringe benefits and affective commitment by Malhotra et al (2007). Again therefore it is possible that the level of fringe benefits provided by an organization is more important to those employees with lower collectivism than those with higher collectivism. Therefore the collectivism orientation of the individual employee will significantly impact the relationship between perceptions of fringe benefits and affective commitment. This leads to the following hypothesis being drawn, that employees with low collectivism will exhibit higher affective commitment towards the organization than those with high collectivism when they are satisfied with the fringe benefits provided by their organization:

**H2a:** Satisfaction with fringe benefits will be significantly related to affective commitment.

**H2b:** Collectivism will moderate the relationship between satisfaction with fringe benefits and affective commitment.

### **3.8.3 Career development practices**

In theory, employees who are provided with career development opportunities should exhibit higher levels of affective commitment to the organization. This theoretical standpoint has been affirmed by research that indicates employee perception of career development practices in their organization are positively related to affective commitment (Meyer and Smith, 2000; Malhotra et al, 2007). Indeed Meyer and Smith (2000) observed that employee perceptions of career development practices were strongly related to affective commitment, both directly and also mediated through perceived organizational support. Similarly research by Malhotra et al (2007) found a direct relationship between employee perceptions of the opportunities for promotion in their organization and affective commitment. It is possible therefore that an employee with lower collectivism will place more importance on career development practices offered by an organization than their colleagues with higher collectivism. Therefore the collectivism orientation of the individual employee will again significantly impact the relationship between perceptions of career development practices and affective commitment. Consequently, the following hypothesis can be developed, that the perception of career development will be more important for employees with lower collectivism than those with higher collectivism in China:

**H3a:** Perceptions of career development practices will be significantly related to affective commitment.

**H3b:** Collectivism will moderate the relationship between perceptions of career development practices and affective commitment.

### **Intrinsic rewards**

#### **3.8.4 Autonomy**

Autonomy is defined as the ability of an employee to determine the way in which they carry out their work. Existing research in HRM practices indicates that autonomy is likely to be positively related to affective commitment (Williamson et al, 2009). This relationship occurs as autonomy assists in satisfying the internal psychological needs of the employee. As current literature has confirmed this empirically in non-Chinese contexts (Eby et al, 1999; Malhotra et al, 2007), similar results are expected in the Chinese context.

Indeed Williamson et al (2009) indicate that an employee's desire for autonomy is a key distinguishing factor between low and high collectivist oriented workers. Employees with low collectivism are observed to prefer independent rather than team-based work activities and therefore may prefer greater autonomy in their daily work (Benet-Martinez and Kitapoglu-Aygun, 2003). This standpoint is corroborated by the findings of Gomez (2003) who indicates that employees with higher collectivism will place a greater emphasis on task interdependence than autonomy. Existing literature suggests that an employee's reaction to being given autonomy in their organization will be influenced by their collectivist orientation. Thus when employees perceive that they are given high levels of autonomy by their organization, those employees with higher collectivism orientations will exhibit lower affective commitment towards the organization than those with lower collectivism orientations. The work of Williamson et al (2009) supports this premise in the US context. The hypothesis can therefore be drawn that the level of autonomy enjoyed by an employee in an organization in China may be of more importance to those employees with lower collectivism than those with higher collectivism:

**H4a:** Autonomy will be significantly related to affective commitment.

**H4b:** Collectivism will moderate the relationship between autonomy and affective commitment.

### **3.8.5 Feedback**

Existing scholarship defines feedback as the extent to which a subordinate employee is provided with an indication of their job performance by a supervisory level employee. The literature indicates that employees' affective commitment towards the organization is influenced by this important feedback (Young et al, 1998). Thus group feedback might be more likely to be accepted willingly by employees with higher collectivism than by their colleagues with lower collectivism (Bailey et al, 1997; Earley et al, 1999). Indeed empirical research by Earley et al (1999) found that a more positive reaction to both individual and group-based feedback was observed in individuals with a high collectivism orientation, compared to those with a low collectivism orientation.

Therefore, the willingness of an employee to accept feedback on their job performance may be influenced by their collectivist orientation (Audia and Tams, 2002). Chinese employees with a high collectivist orientation have been observed in previous research to be more willing to accept feedback on their job performance than employees from countries low in collectivism (Bailey et al, 1997). It is therefore possible to develop the hypothesis that when employees perceive their organization offers constructive performance feedback, greater levels of organizational commitment will be exhibited by employees with a high collectivism orientation than those employees with a low collectivism orientation:

**H5a:** Feedback will be significantly related to affective commitment.

**H5b:** Collectivism will moderate the relationship between feedback and affective commitment.

### **3.8.6 Participation in decision making**

The literature published on employee participation in decision making, defines it as the degree to which employees are able to influence decisions about their job. Empirical studies have found a positive relationship between an employee's participation in decision making and their affective commitment (Malhotra et al, 2007). Cross cultural research on employee goals in the workplace suggest that individuals in different countries perceive participation in organization decision making quite differently (Yu et al, 2003). Indeed, this research noted that individuals from China, a country with a high collectivism orientation, consider participation in decision making to be a less important



work goal than their counterparts in the USA, a country with a low collectivism orientation. Therefore it possible to develop the hypothesis that greater levels of affective organizational commitment will be exhibited by employees with a low collectivism orientation than those with a high collectivism orientation when they are able to participate in decision making which concerns their position:

**H6a:** Participation in decision making will be significantly related to affective commitment.

**H6b:** Collectivism will moderate the relationship between participation in decision making and affective commitment.

## **Social rewards**

### **3.8.7 Co-worker support**

Recent literature published on the organizational commitment of employees, has suggested that support from co-workers may directly affect an employee's organizational commitment (Chiaburu and Harrison, 2008). Employees rely on their co-workers to provide psychological and social support, as well as feedback to other members in the organization (Ensher et al, 2001). Indeed research has confirmed the theory that promotion of co-worker support by an organization, yields a positive emotional response from employees and greater levels of affective commitment towards the organization (Chiaburu and Harrison, 2008).

Research has also confirmed that employees with a high collectivism orientation will both maintain closer relationships with their colleagues and have a greater desire to engage in teamwork in the organization (Eby and Dobbins, 1997; Wagner, 1995). However employees with low collectivism orientation exhibit lower trust in their co-workers, will prefer to work alone and will be less committed to team members (Kirkman and Shapiro, 1997; Ramamoorthy and Flood, 2002). With this in mind, the following hypotheses may be drawn, that when they perceive high levels of co-worker support, employees with a high collectivism orientation will exhibit greater affective commitment towards the organization than their counterparts with a lower collectivism orientation:

**H7a:** Perceptions of co-worker support will be significantly related to affective commitment.

**H7b:** Collectivism will moderate the relationship between perceptions of co-worker support and affective commitment.

### **3.8.8 Satisfaction with supervision**

Supervision is defined in the literature as the extent to which employees are satisfied with the conduct of their supervisor towards them. Research has confirmed that employees who are satisfied with their supervisors will exhibit greater commitment to the organization (Mottaz, 1988; Wang, 2004). Currently, no research has been published which investigates the impact of collectivism on the relationship between an employee's satisfaction with their supervisor and their organizational commitment. However, research has indicated that employees from Western cultures with a low collectivism orientation will view the support from their supervisor more positively than employees with a high collectivism orientation (Glazer, 2006). Therefore the hypothesis may be developed that when employees are satisfied with their supervisor, those with a low collectivism orientation will exhibit greater affective commitment towards the organization than those with a high collectivism orientation:

**H8a:** Satisfaction with supervision will be significantly related to affective commitment.

**H8b:** Collectivism will moderate the relationship between satisfaction with supervision and affective commitment.

### **3.9 Summary**

This chapter has reviewed the literature relating to rewards, culture and organizational commitment. The linkages of these three concepts have been developed into the conceptual framework. Using this framework and the previous research, eight main hypotheses have been developed for this study. Firstly, H1a, that satisfaction with compensation will be significantly related to affective commitment; alternatively H1b that collectivism will moderate this relationship between satisfaction with compensation and affective commitment. Second, H2a that satisfaction with fringe benefits will be significantly related to affective commitment; or instead, H2b that collectivism will moderate the relationship between satisfaction with fringe benefits and affective commitment. Thirdly, H3a that perceptions of career development practices will be significantly related to affective commitment; or H3b, that collectivism will moderate the relationship between perceptions of career development practices and affective commitment. The fourth hypothesis, H4a, is that autonomy will be significantly related to affective commitment; alternatively, H4b that collectivism will moderate the relationship between autonomy and affective commitment. Fifthly,

H5a that feedback will be significantly related to affective commitment; or instead, H5b that collectivism will moderate the relationship between feedback and affective commitment. The sixth hypothesis, H6a, is that participation in decision making will be significantly related to affective commitment; or alternatively, H6b, that collectivism will moderate the relationship between participation in decision making and affective commitment. The seventh hypothesis, H7a, is that perceptions of co-worker support will be significantly related to affective commitment; alternatively, H7b, that collectivism will moderate the relationship between perceptions of co-worker support and affective commitment. The final hypothesis, H8a, is that satisfaction with supervision will be significantly related to affective commitment; or instead, H8b that collectivism will moderate the relationship between satisfaction with supervision and affective commitment.

## **Chapter 4 Research methodology**

### **4.1 Introduction**

This chapter presents the rationale which underpins the research methodology used in this study. The means by which data was acquired for the study, and the methods used to analyse the data in order to meet the objectives of the research, are also indicated. Furthermore, the research alternatives which were possible are critically evaluated. The author has extended studies of Malhotra et al (2007) to the Chinese context by adding cultural values to the research into China Airline Co.

### **4.2 Quantitative versus qualitative research**

The two main methods used to acquire data for research can be classified as quantitative or qualitative. Quantitative research requires a large number of respondents to provide quantifiable answers for the particular attitudes, behaviours and motivations of these respondents (Wilson, 2006). In contrast, qualitative research utilises small samples of respondents who are selected carefully in relation to the research topic. The data produced from this research is non-quantifiable and usually provides insights into the attitudes, behaviours, feelings and motivations of the respondents (Craig and Douglas, 2002; Wilson, 2006). Additionally the process of gathering data using qualitative methods is generally more unstructured and flexible when compared to qualitative research (Wilson, 2006).

Each research method has advantages and disadvantages. Indeed Gephart (2004) suggests that there are three research traditions, positivism/postpositivism, interpretive research and critical postmodernism. Research in the tradition of positivism assumes that reality is external and objective, and consequently knowledge is only of significance if it is derived from observations of this external reality (Easterby-Smith et al, 2004). The advantages of this research paradigm and quantitative methods are the quantifiable observations that arise from having a highly structured methodology; indeed these observations can be statistically analysed. However the positivism paradigm and quantitative research methodology are also critiqued for providing an artificial data set using inflexible methods (Saunders et al, 2007) as there is lack of understanding of the rationale behind a respondent's action or behaviour. Furthermore, the approach also yields data on recent

activity but does not provide an immediate method by which to infer what respondents may think in the future (Easterby-Smith et al, 2004).

As intimated, interpretive research is an alternative research tradition that assumes a reality based on subjective and objective meanings. This form of research aims to understand people's actions and therefore tends to be more closely associated with qualitative research. As Creswell, 1994 suggests, this means that the researcher has to be close to the research subject and must understand their issues in detail. This is the main benefit of conducting qualitative research under this paradigm – the rationale and motivation for the research subject's behaviour can be understood. However, the consequent disadvantage of this paradigm is its time consuming nature and the difficulty associated with analyzing data (Gephart, 2004). Furthermore, interpretive research is critiqued as it has no standard procedure to follow and therefore results are considered to have low credibility (Easterby-Smith et al, 2004) as the bias of a researcher may unconsciously influence the results.

Finally, Gephart posits that the research tradition of critical postmodernism, which combines critical theory and postmodern thought, uncovers hidden interest and contradictions in the research subject (ibid, 2004). Research in this tradition is theorised to describe and display the power implications of dominant and subordinated meanings; critical thought is also encouraged so that research subjects reflect on their own actions (ibid, 2004). However, whilst reflexivity is one of the strengths of this research tradition, critical postmodernism also suffers from the same criticisms as the interpretative research paradigm in that it is time consuming, data analysis is difficult and the researcher may influence the research outcomes.

In light of this analysis and to fulfil the objectives of this study into China Airline Co, quantitative methods have been selected to be used in the research for a number of reasons. Firstly, with quantitative research it is easier to analyse data from a large sample size. Indeed, in order to fully understand the influence of culture on the relationship between rewards and organizational commitment, a large number of respondents to the research are required. Secondly, as the author does not speak Mandarin, using interviews with employees of China Airline Co as a form of qualitative research, would not have been practicable without the services of an interpreter. Furthermore, as access to organizations for research purposes in China continues to be facilitated

through *guanxi*, the senior management at China Airline Co would have been unlikely to allow access to their employees for interview by a Western researcher. Thirdly, as intimated in the literature review, existing literature on rewards, collectivism and affective commitment from Western studies, and from the nascent Chinese body of literature, have used quantitative research methods to gain data for analysis. Finally, due to the limited time that the author had available in China for this research, quantitative research methods were clearly the most appropriate choice.

Had more time been available in China, the author would have explored the possibility of using a mixed method of research which incorporated quantitative and qualitative research. Whilst quantitative research allows the influence of culture on the relationship between rewards and organizational commitment to be analysed, qualitative research could have explored the reasons for these relationships. Therefore a mixed approach could have mitigated the disadvantages of each research approach. However, as intimated, the practical difficulties invoked by a Western researcher undertaking qualitative research into a Chinese organization, especially given a limited time constraint, meant that this option could not be pursued for this research.

#### **4.3 Sample and procedure**

This research utilised self-completion survey questionnaires, a copy of which is presented in appendix A. The original questionnaire was written in English and then translated into Mandarin using the back translation method proposed by Brislin (1999). Before the questionnaire was distributed to China Airline Co employees, a pilot test of the translation was conducted on a group of UNNC students and this led to some further adjustments being made to the final Mandarin version of the questionnaire. As intimated, access to China Airline Co was facilitated through agreement with Mr Alex Newman of UNNC and Luo Jun, a student at UNNC. Although the difficulty of access raises ethical issues, as indicated, there was no alternative means by which the author could access employees at China Airline Co for research in the time available in the country. Therefore through these existing channels, survey questionnaires were distributed to employees of the airline in various locations across China. The human resources department of China Airline Co randomly selected research participants from employee lists and invited them to partake in the research. As the questionnaires were distributed using an individual email link, the responses could be validated as being from different employees. The questionnaire responses were therefore anonymous and as the questions had been carefully worded, the risk of response bias, in which employees' answers do

not accurately reflect their true beliefs, was mitigated. Furthermore, taking account of privacy and data protection laws in China and the UK, and the guidelines of the University of Nottingham on research, employee participation in the research was voluntary and all data from the questionnaires is stored securely and anonymously in aggregate form.

At the end of this process, a total of 290 valid responses were obtained from 700 prospective participants randomly selected at China Airline Co; this gives a response rate of 41 percent. 43 percent of the respondents were female and 57 percent male. The average age of the employees who responded was 31.2 and their average tenure at China Airline Co was 6.9 years.

#### 4.4 Measures

There are five constructs under consideration in this research, affective commitment, collectivism and extrinsic, intrinsic and social rewards. Therefore each of these constructs was assessed using a series of questions to the employees which allowed them to indicate their level of agreement with a particular statement. Responses were measured on a five point Likert scale ranging from (1) strongly disagree to 5 (strongly agree). Extrinsic, intrinsic and social rewards are the independent variables; affective commitment is the dependent variable and collectivism is the moderating variable in the research. The scales for the constructs were derived from the published literature.

##### 4.4.1 Measures of affective commitment

Affective commitment was measured using a six-item scale based on Meyer et al (1993).

Variables	Source of variable
I would be happy to spend the rest of my career with this organization.	Meyer et al (1993)
I really feel that this organization's problems are my own.	Meyer et al (1993)
I do not feel a strong sense of belonging to my organization.	Meyer et al (1993)
I do not feel "emotionally attached" to this organization.	Meyer et al (1993)
I do not feel like "part of the family" at this organization.	Meyer et al (1993)
This organization has a great deal of personal meaning to me.	Meyer et al (1993)

*Table 4-1: Affective commitment variables*

#### 4.4.2 Measures of collectivism

Collectivism was measured using Singelis et al's (1995) 8-item collectivism scale. Previous studies in the Chinese context had validated this scale (Francesco and Chen, 2004).

Variables	Source of variable
The well-being of others is important to me.	Singelis et al (1995)
If a friend gets a prize, I would be proud.	Singelis et al (1995)
If a relative were in financial difficulty, I would help within my means.	Singelis et al (1995)
It is important to maintain harmony within my group.	Singelis et al (1995)
I like sharing little things with my neighbours.	Singelis et al (1995)
I feel good when I cooperate with others.	Singelis et al (1995)
My happiness depends very much on the happiness of those around me.	Singelis et al (1995)
To me, pleasure is spending time with others.	Singelis et al (1995)

Table 4-2: *Collectivism variables*

#### 4.4.3 Measures of extrinsic rewards

##### Satisfaction with compensation

This construct, satisfaction with compensation, was measured using a 3-item scale which was developed by Malhotra et al (2007).

Variables	Source of variable
I am satisfied with the amount of pay I receive for the job I do.	Malhotra et al (2007)
I am satisfied with my pay considering other organizations I know of.	Malhotra et al (2007)
I feel I am paid fairly considering the work I do.	Malhotra et al (2007)

Table 4-3: *Satisfaction with compensation variables*

##### Satisfaction with fringe benefits

A 2-item scale based on the work of Spector (1997) was used to measure satisfaction with fringe benefits. Malhotra et al (2007) validated the use of this scale in their study.



Variables	Source of variable
I am satisfied with the fringe benefits package offered by my organization.	Spector (1997)
The fringe benefits package in my organization is as good as other organizations offer.	Spector (1997)

*Table 4-4: Satisfaction with fringe benefits variables*

### Career development practices

The final extrinsic reward construct, career development practices, were measured using a 2-item scale introduced by Malhotra et al (2007). This scale itself was based on existing scales developed by Mottaz (1988) and Young et al (1998).

Variables	Source of variable
I feel that the promotion policy in my organization is good.	Malhotra et al (2007)
There are reasonable opportunities for advancement in my job.	Malhotra et al (2007)

*Table 4-5: Career development practices variables*

#### 4.4.4 Measures of intrinsic rewards

##### Autonomy

A 3-item scale was used to measure autonomy. This scale was based on the job diagnostic survey developed by Hackman and Oldham (1976). Recent research by Malhotra et al (2007) had validated the continuing use of this scale.

Variables	Source of variable
The job allows me to use personal initiative in carrying out the work.	Hackman and Oldham (1976)
The job gives me opportunity for freedom in how I do the work.	Hackman and Oldham (1976)
I have freedom to do what I want on my job to meet my work objectives.	Hackman and Oldham (1976)

*Table 4-6: Autonomy variables*

## Feedback

Based on the literature reviewed, a 3-item scale was developed to measure feedback.

Variables	Source of variable
I am satisfied with the performance appraisal process in my organization.	This research
The performance appraisal process in my organization is fair.	This research
The organization gives me adequate feedback on how I am performing in my job.	This research

Table 4-7: Feedback variables

## Participation in decision making

The final intrinsic reward construct was measured using a scale taken from Teas et al (1979). Recent work by Malhotra et al (2007) has validated the use of this scale.

Variables	Source of variable
I can influence the decisions of my superior regarding things in my job.	Teas et al (1979)
My superior asks my opinion when problems comes up.	Teas et al (1979)
I feel it is easy to get job improvement ideas across to my superior.	Teas et al (1979)

Table 4-8: Participation in decision making variables

### 4.4.5 Measures of social rewards

#### Co-worker support

The 4-item scale used to measure co-worker support was developed by Malhotra et al (2007); again this scale was based on those previously developed by Mottaz (1998).

Variables	Source of variable
My co-workers are helpful to me in getting my job done.	Malhotra et al (2007)
I am satisfied with the supportive attitude of my co-workers at work.	Malhotra et al (2007)
Everyone contributes to a team effort within my organization.	Malhotra et al (2007)
My co-workers and I co-operate more often than we compete.	Malhotra et al (2007)

Table 4-9: Co-worker support variables

### Satisfaction with supervision

The final social reward construct, satisfaction with supervision, was measured using a 6-item scale first utilised by Singh (1993). Subsequently Malhotra et al (2007) have validated that the use of this scale is still appropriate.

Variables	Source of variable
My supervisor is approachable.	Singh (1993)
My supervisor helps make my job more pleasant.	Singh (1993)
My supervisor treats all the workers as his/her equal.	Singh (1993)
I am satisfied with the technical competence of my supervisor.	Singh (1993)
I am satisfied with my supervisor's ability to lead me.	Singh (1993)
I satisfied am with the way my supervisor helps me achieve my goals.	Singh (1993)

*Table 4-10: Satisfaction with supervision variables*

### 4.5 Questionnaire design

The questionnaire incorporated the variables described into four sections. The first part of the questionnaire addressed employee feelings on their rewards; employees were then asked for their responses on organizational commitment; the third part assessed the level of collectivism exhibited by the employee; finally, the fourth part asked employees questions pertaining to their position in the company and the length of their employment there. Additionally there were three questions which asked the respondents to indicate their gender, age and educational level.

### 4.6 Methods of measuring reliability and validity

In order to examine the validity of the questionnaire, its content validity, convergent and discriminant validity and finally its construct validity were tested. As intimated, the questionnaire was piloted on students at UNNC to ensure that the Mandarin translation was appropriate and clear. A total of 35 male and female respondents partook in this pilot and Cronbach's alpha measure of this data showed that every construct's  $\alpha$  value was over 0.7. As this is the common threshold for reliability (Fornell and Larcker, 1981), there was therefore high consistency amongst each item. The results of this pilot test were used to slightly adjust the Mandarin translation and measures in the

questionnaire. The measures were thought to be reliable, as they had been developed from existing research, but this pilot test confirmed the validity of the content of the questionnaire.

The convergent and discriminant validity of the questionnaire was established using confirmatory factor analysis; indeed discriminate validity was confirmed as variables were found to load more highly onto their factors than onto other factors (Fornell and Larcker, 1981). Additionally the average square multiple correlations were found to exceed 0.5, which is the threshold for convergent validity (Fornell and Larcker, 1981). Furthermore, discriminant validity was affirmed as the estimates of the average variance extracted exceeded 0.5. As convergent and discriminant validity have been indicated, by definition, the construct validity of the questionnaire has also been established. In sum, all of the measurements show satisfactory validity and reliability.

#### **4.7 Hypothesis testing**

After testing for reliability, exploratory factor analysis in SPSS also illustrated which reward system variables loaded onto affective organizational commitment. This allowed the number of variables in the dataset to be reduced and five meaningful factors emerged relating to organizational rewards, which reflected the existing scales. It was found that two of the extrinsic reward variables, satisfaction with compensation and satisfaction with fringe benefits mapped onto one factor; this factor was termed 'satisfaction with benefits'. Furthermore, two of the intrinsic reward variables, feedback and participation in decision making, also mapped onto one factor and this factor was termed 'working conditions'. Finally the two social reward variables of co-worker support and satisfaction with supervision also mapped onto one factor, which was termed 'social support'.

Each of the hypotheses was then tested using moderated hierarchical regression analysis. This analysis used three stages. In the first stage, regression analysis was applied to the personal variables derived from the questionnaire responses, tenure, management position, gender, age and education level. In the second stage, the new factors identified were included in the regression. In the final stage a new variable was created for each construct which was a multiple of the new factor and collectivism. This variable allowed the influence of culture on the relationship between rewards and organizational commitment to be clearly observed. The results of this moderated hierarchical regression analysis are shown in chapter 5.

Original variable	New factor
Affective commitment (AC)	Affective commitment (AC)
Collectivism (CV)	Collectivism (CV)
Satisfaction with compensation (extrinsic) (SC)	Satisfaction with benefits (extrinsic) (SFB/SC)
Satisfaction with fringe benefits (extrinsic) (SFB)	
Career development practices (extrinsic) (CDP)	Career development practices (extrinsic) (CDP)
Autonomy (intrinsic) (A)	Autonomy (intrinsic) (A)
Feedback (intrinsic) (F)	Working conditions (intrinsic) (WC)
Participation in decision making (intrinsic) (P)	
Co-worker support (social) (CWS)	Social support (intrinsic) (SS/CWS)
Satisfaction with supervision (social) (SS)	

*Table 4-11: Reduced number of factors identified after exploratory factor analysis*

#### 4.8 Summary

This chapter has illustrated the research methodology in this study. Quantitative research was chosen to analyse the influence of culture on the relationship between rewards and affective organizational commitment at China Airline Co. This form of research was used as a large sample size was required and the time available in the country was limited. Five constructs are under consideration in the research, affective commitment, collectivism and extrinsic, intrinsic and social rewards. Eight hypotheses were developed based on the literature reviewed and the design of the questionnaire was pilot tested to ensure its content, convergent and discriminant, and finally its construct validity. This led to some minor modifications being made to the questionnaire design before it was randomly distributed to 700 employees of China Airline Co through the human resources department of the airline.

Some 290 responses to the questionnaire were returned via email. Exploratory factor analysis of the resulting data allowed the number of variables to be reduced to seven factors. Finally, using the new factors, moderated hierarchical regression analysis was conducted to test the hypotheses. The three stages of analysis allowed a new variable to be created for each construct, which was a multiple of the new factor and collectivism. Using SPSS and ModGraph, these new variables allow the hypotheses to be tested and the results to be viewed graphically; this is illustrated in chapter 5.

## Chapter 5 Data analysis

### 5.1 Introduction

The results of the data are presented in this chapter. Firstly the characteristics of the data sample are provided. Secondly, the results of the tests which used Cronbach's alpha value, confirmatory factor analysis and average square multiple correlations are illustrated. Exploratory factor analysis was then applied to the data and this allowed the number of variables to be reduced to seven factors. The hypotheses were subsequently tested by moderated hierarchical regression analysis, using as indicated, the interactive term created by multiplying the moderating variable (collectivism) with one of the new factors. Finally a summary of the main findings from the data is provided.

### 5.2 Sample description

A total of 700 questionnaires were distributed in this study. Some 290 completed questionnaires were returned by email, giving a response rate of 41 percent. Responses comprised 43 percent from female employees and 57 percent from male employees of China Airline Co. The average age of the employees who responded was 31.2 years and they had worked at the airline for an average of 6.9 years.

	Frequency	Percent	Cumulative percent
15 - 24	0	0 %	0 %
25 - 34	91	31.4 %	31.4 %
35 - 44	112	38.6 %	70 %
45 - 54	62	21.4 %	91.4 %
55 - 64	24	8.3 %	99.7 %
65 +	1	0.3 %	100 %

Table 5-1: Age frequency

With respect to their position within the airline, 36.2 percent of employees indicated that they were in management positions; the remaining 63.8 percent of employees did not occupy managerial positions. Finally, 62.1 percent of the respondents identified high school certificate as the highest level of education they had completed. The remaining 37.9 percent of respondents indicated that a university degree was their highest level of education.

### 5.3 Reliability and validity

Several tests were used to analyse the reliability and validity of the questionnaire measures and research data. Cronbach's alpha value tested reliability; confirmatory factor analysis tested for construct validity; average square multiple correlations verified convergent validity; finally exploratory factor analysis tested the suitability of the factors. Firstly the reliability of the variables was tested using Cronbach's alpha test and unlike when this test was initially applied (after the questionnaire had been piloted on UNNC students), two of the variables, satisfaction with compensation and co-worker support, were found to have  $\alpha$  values less than 0.7, which is the threshold commonly used for testing reliability (Fornell and Larcker, 1981); all the other variables had  $\alpha$  values over 0.7.

Variables	Cronbach's Alpha value of all items	Cronbach's Alpha value after items deleted
Affective commitment	.8618	.8618
Collectivism	.7050	.7050
Satisfaction with compensation (extrinsic)*	.6207	.8867
Satisfaction with fringe benefits (extrinsic)	.7169	.7169
Career development practices (extrinsic)	.8788	.8788
Autonomy (intrinsic)	.9032	.9032
Feedback (intrinsic)	.8403	.8403
Participation in decision making (intrinsic)	.8671	.8671
Co-worker support (social)**	.6396	.8475
Satisfaction with supervision (social)	.8669	.8669

Table 5-2: Reliability of variables

\*Variable included deleted item SC1 (q. A1)

\*\*Variable included deleted items CWS 1 (q. A17) and CWS4 (q. A20)

The Cronbach's alpha value results for the other variables were high which indicates good consistency of measurement amongst these variables. As intimated, it was found after testing that deleting item one from satisfaction with compensation - SC1 'I am satisfied with the amount of pay I receive for the job I do' (q. A1) - and deleting items one and four from co-worker support - CWS1

'My co-workers are helpful to me in getting my job done' (q. A17) and CWS4 'My co-workers and I co-operate more often than we compete' (q. A20) - increased the Cronbach's alpha values for these two variables. Indeed the  $\alpha$  value for satisfaction with compensation increased to 0.8867 and the  $\alpha$  value for co-worker support increased to 0.8475. After these adjustments were made, all variables had Cronbach's alpha values over 0.7 and a number of variables had alpha values over 0.8.

The second test applied to the data was confirmatory factor analysis to examine the construct validity; any item that loaded less than 0.5 onto its intended variable (Fornell and Larcker, 1981) was considered for deletion. The results of the confirmatory factor analysis indicated that apart from six items, all other items had values of factor loading greater than 0.5. The items with loading less than 0.5 were collectivism item one - CV1 'The well-being of others is important to me' (q. C1) - and collectivism item five - CV5 'I like sharing little things with my neighbours' (q. C5); feedback item one - F1 'I am satisfied with the performance appraisal process in my organization' (q. A11) - and feedback item three - F3 'The organization gives me adequate feedback on how I am performing in my job' (q. A13); and participation in decision making item two - P2 'My superior asks my opinion when problems come up' (q. A15) - and participation in decision making item three - P3 'I feel it is easy to get job improvement ideas across to my supervisor' (q. A16). Consequently these six items were deleted after the confirmatory factor analysis.

Convergent validity was then also tested in SPSS using average square multiple correlations (SMCs); this test established which variables exceeded 0.5, which is the threshold for convergent validity (Fornell and Larcker, 1981). All of the variables had average square multiple correlations greater than 0.5, except the variables which also had factor loading less than 0.5: collectivism, feedback and participation in decision making. These variables therefore have lower convergent validity, but as each of the average square multiple correlations is still greater than 0.4, these variables may still be used in further data analysis.



Variables	Items	SMCs	Average SMCs	Factor loading
Affective commitment	AC1	0.48	0.55	0.65
	AC2	0.55		0.62
	AC3	0.45		0.71
	AC4	0.60		0.69
	AC5	0.56		0.76
	AC6	0.69		0.77
	AC7	0.40		0.58
	AC8	0.63		0.67
Collectivism	CV1*	0.33	0.47†	0.41
	CV2	0.51		0.58
	CV3	0.64		0.72
	CV4	0.46		0.51
	CV5*	0.31		0.45
	CV6	0.56		0.65
Satisfaction with compensation (extrinsic)	SC1**	---	0.53	---
	SC2	0.51		0.65
	SC3	0.55		0.62
Satisfaction with fringe benefits (extrinsic)	SFB1	0.62	0.65	0.65
	SFB2	0.68		0.71
Career development practices (extrinsic)	CDP1	0.52	0.63	0.65
	CDP2	0.73		0.75
Autonomy (intrinsic)	A1	0.73	0.69	0.67
	A2	0.64		0.65
	A3	0.70		0.74
Feedback (intrinsic)	F1*	0.30	0.46†	0.44
	F2	0.66		0.73
	F3*	0.42		0.42
Participation in decision making (intrinsic)	P1	0.53	0.43†	0.78
	P2*	0.40		0.45
	P3*	0.37		0.41
Co-worker support (social)	CWS1**	---	0.56	---
	CWS2	0.53		0.57
	CWS3	0.58		0.71
	CWS4**	---		---
Satisfaction with supervision (social)	SS1	0.53	0.62	0.75
	SS2	0.66		0.61
	SS3	0.58		0.72
	SS4	0.55		0.62
	SS5	0.74		0.82
	SS6	0.64		0.71

Table 5-3: Validity of questionnaires

\* Item deleted after confirmatory factor analysis

\*\*Item deleted previously after Cronbach's alpha test

† Value lower than standard, but variable still accepted

Finally, exploratory factor analysis was used to test the suitability of the factors for the remaining 31 variables. Seven factors were identified after this exploratory factor analysis which each had eigenvalues greater than 1 and are therefore significant. As intimated in part 4.7, the number of the variables in the dataset were therefore reduced: two of the extrinsic reward variables, satisfaction with compensation and satisfaction with fringe benefits mapped onto one factor which was termed 'satisfaction with benefits'. Additionally, two of the intrinsic reward variables, feedback and participation in decision making, also mapped onto one factor and this factor was termed 'working conditions'. The two social reward variables of co-worker support and satisfaction with supervision also mapped onto one factor; this factor was termed 'social support'. Each of the remaining items belongs to their own factors, except CV3 which could be included in either collectivism or working conditions. However, based on the design of the measures, this item should be included with the other collectivism variables.

Original variable	New factor
Affective commitment (AC)	Affective commitment (AC)
Co-worker support (social) (CWS)	Social support (intrinsic) (SS/CWS)
Satisfaction with supervision (social) (SS)	
Collectivism (CV)	Collectivism (CV)
Satisfaction with compensation (extrinsic) (SC)	Satisfaction with benefits (extrinsic) (SFB/SC)
Satisfaction with fringe benefits (extrinsic) (SFB)	
Autonomy (intrinsic) (A)	Autonomy (intrinsic) (A)
Career development practices (extrinsic) (CDP)	Career development practices (extrinsic) (CDP)
Feedback (intrinsic) (F)	Working conditions (intrinsic) (WC)
Participation in decision making (intrinsic) (P)	

Table 5-4: Reduced number of factors identified after exploratory factor analysis (ordered)

	Components						
	1	2	3	4	5	6	7
Items	Affective commitment	Social support	Collectivism	Satisfaction with benefits	Autonomy	Career development practices	Working conditions
AC3	.879						
AC5	.874						
AC1	.860						
AC6	.812						
AC4	.809						
AC2	.706						
SS2		.766					
SS5		.752					
SS3		.747					
SS4		.744					
SS1		.705					
SS6		.586					
CWS3		.518					
CWS2		.401					
CV8			.779				
CV7			.702				
CV2			.687				
CV6			.636				
CV4			.611				
CV3			.525				.464
SC2				.764			
SC3				.735			
SFB1				.590			
SFB2				.440			
A1					.740		
A2					.654		
A3					.632		
CDP1						.745	
CDP2						.692	
WC2							.601
WC1							.589

Table 5-5: Exploratory factor analysis (rotated)

## **5.4 Hypothesis testing**

The hypotheses were tested, as intimated, using moderated hierarchical regression analysis in SPSS. Firstly regression analysis was applied to the personal variables derived from the responses to the questionnaire, tenure, management position, gender, age and education level. In the next stage, the new factors identified using exploratory factor analysis were included in the regression. In the final stage, a new variable was created for each construct which was a multiple of the new factor and collectivism; the regression output from SPSS is presented in Appendix B. Using this process, the influence of culture on the relationship between rewards and organizational commitment could be clearly analyzed. The results of this moderated hierarchical regression analysis were then processed with ModGraph to display them in graphical format.

### **5.4.1 Social support**

Using the new variable (the interaction term), Social support X Collectivism (SocSupCol), the result of regression analysis indicates that the impact of collectivism on the relationship between social support and affective support is negatively significant as the t-value is over -2. Indeed the t-value calculated using SPSS is -2.134 and collectivism is therefore an accurate moderator of this relationship. The hypotheses H7b and H8b can therefore be supported. As the ModGraph graphical output (figure 5-1 below) indicates, whilst collectivism does moderate the relationship between rewards and organizational commitment, those employees with low collectivism orientation exhibit higher affective commitment (than their high collectivism colleagues) when they perceive social support to be high. This is contrary to the expectations outlined in 3.8.7 prior to the hypotheses being formed. However the findings confirm the theory discussed in 3.8.8, that when employees are satisfied with their supervisor, those with a low collectivism orientation do exhibit greater affective commitment to the organization than those employees with a high collectivism orientation.

**H7a:** Perceptions of co-worker support will be significantly related to affective commitment.

H7a NOT SUPPORTED

**H7b:** Collectivism will moderate the relationship between perceptions of co-worker support and affective commitment.

**H7b SUPPORTED**

**H8a:** Satisfaction with supervision will be significantly related to affective commitment.

H8a NOT SUPPORTED

**H8b:** Collectivism will moderate the relationship between satisfaction with supervision and affective commitment.

H8b SUPPORTED

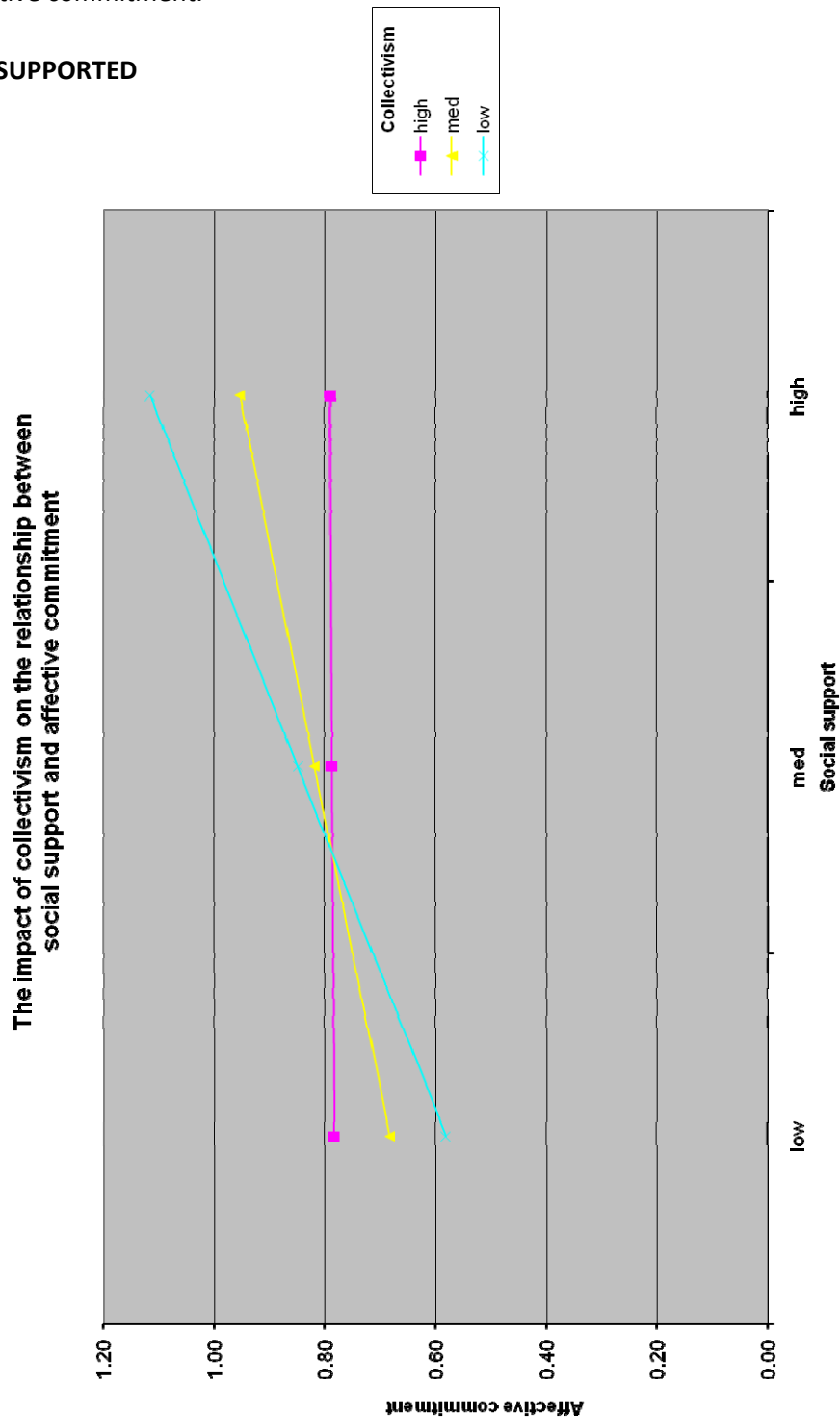


Figure 5-1: The impact of collectivism on the relationship between social support and affective commitment

#### **5.4.2 Satisfaction with benefits**

The new variable created after the first two stages of moderated hierarchical regression analysis was Satisfaction with benefits X Collectivism (SatBenCol). Using this variable, the results of the regression indicate that the impact of collectivism on the relationship between satisfaction with benefits and affective commitment is not significant as the t-value is less than - 2 (the t-value is - 1.354) and this variable, collectivism, is therefore not an accurate moderator of this relationship. However whilst the results are not statistically significant for this factor, and therefore we must support H1a and H2a (satisfaction with compensation and fringe benefits is related to affective commitment), the ModGraph result (figure 5-2 below) indicates that hypotheses H1b and H2b may be acceptable at a lower confidence interval. Indeed, it is clear from this graph that employees with low collectivism are more committed to the organization, than their colleagues with high collectivism, when they perceive that they are well compensated and have a high degree of fringe benefits (satisfaction with benefits). Furthermore, the affective commitment of their high collectivism colleagues is not greatly affected by their satisfaction with benefits. Although their affective commitment is higher to start with, the rate of increase in satisfaction is lower than for their low collectivism colleagues.

**H1a:** Satisfaction with compensation will be significantly related to affective commitment.

**H1a SUPPORTED**

**H1b:** Collectivism will moderate the relationship between satisfaction with compensation and affective commitment.

**H1b NOT SUPPORTED**

**H2a:** Satisfaction with fringe benefits will be significantly related to affective commitment.

**H2a SUPPORTED**

**H2b:** Collectivism will moderate the relationship between satisfaction with fringe benefits and affective commitment.

**H2b NOT SUPPORTED**

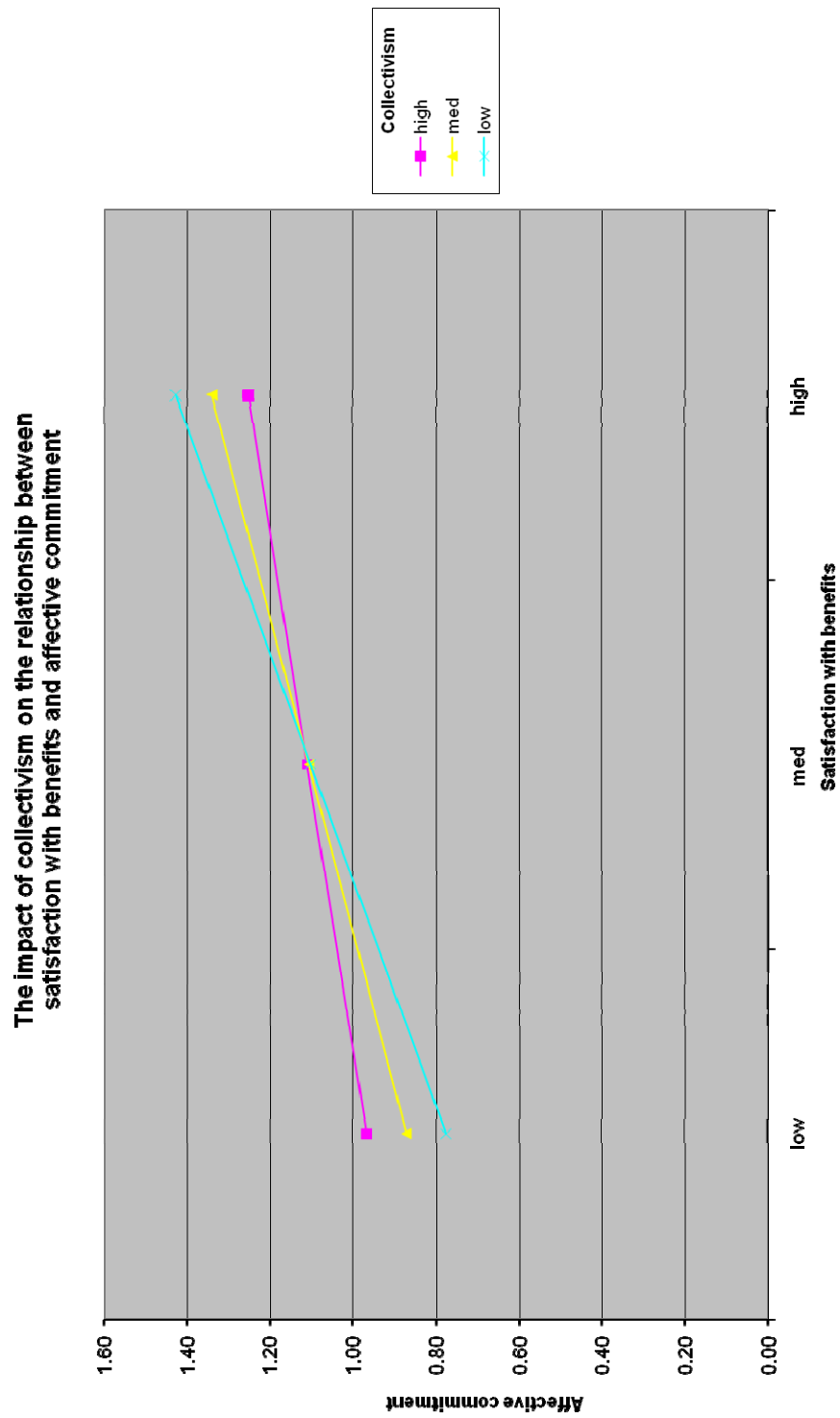


Figure 5-2: The impact of collectivism on the relationship between satisfaction with benefits and affective commitment

### 5.4.3 Autonomy

The hypothesis test for autonomy used the new variable (interaction term), Autonomy X Collectivism (AutoCol). Regression analysis indicates that the impact of collectivism on the relationship between autonomy and affective support is negatively significant as the t-value is over -2. Indeed using SPSS the t-value was calculated to be -2.612 and collectivism can therefore be viewed as an accurate moderator of this relationship. The hypothesis H4b can therefore be supported. As the ModGraph output (figure 5-3 below) indicates, autonomy enjoyed by an employee is of more importance to an employee with low collectivism than those with high collectivism. This supports the theoretical discussion in 3.8.4 prior to the formation of the hypotheses. For example, the graphical output indicates that affective commitment is greater for low collectivism orientated employees when they perceive that they have high levels of autonomy; however, for their colleagues who have higher collectivism orientations, the level of autonomy that they perceive does not significantly impact their affective organizational commitment.

**H4a:** Autonomy will be significantly related to affective commitment.

H4a NOT SUPPORTED

**H4b:** Collectivism will moderate the relationship between autonomy and affective commitment.

**H4b SUPPORTED**



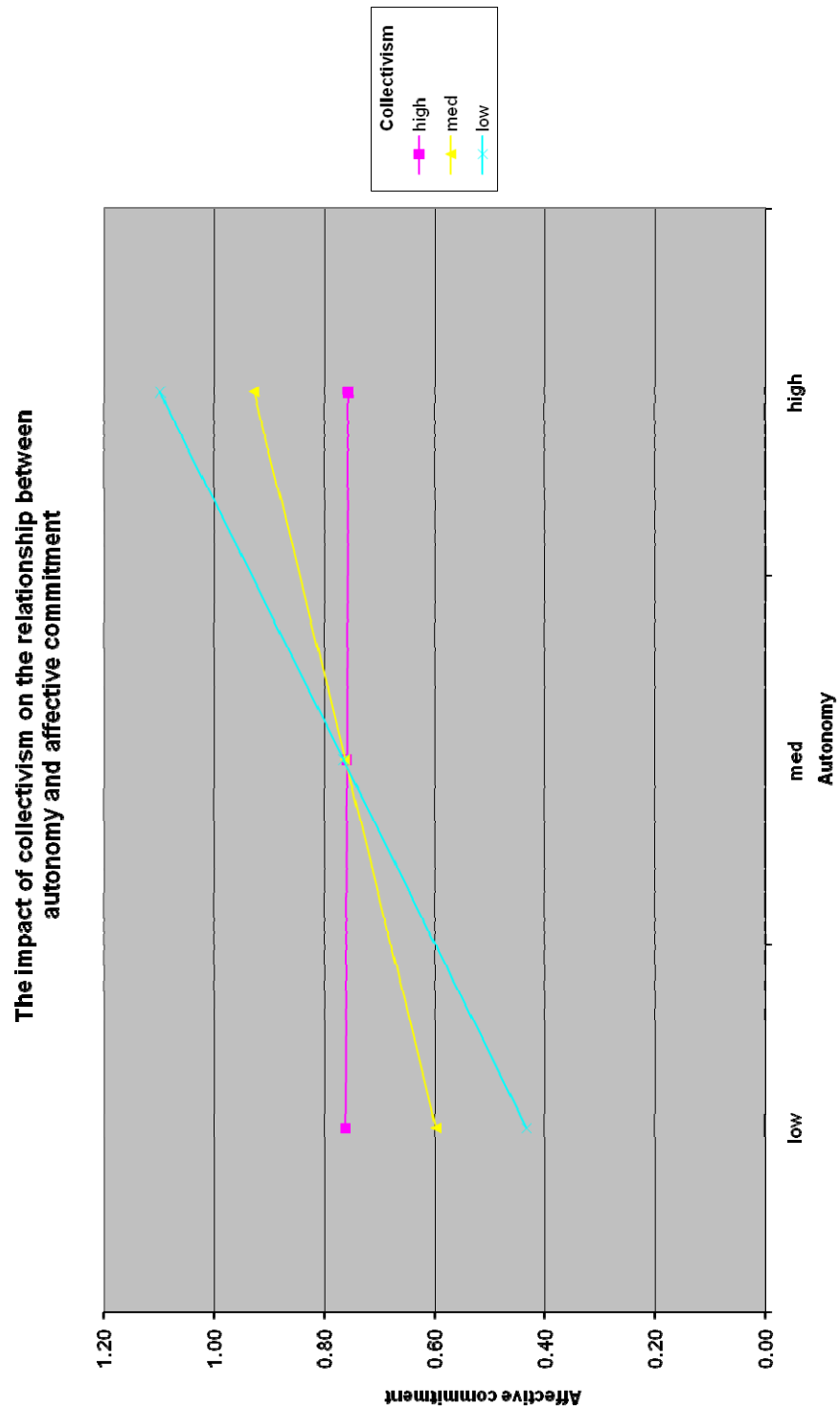


Figure 5-3: The impact of collectivism on the relationship between autonomy and affective commitment

#### **5.4.4 Career development practices**

The new variable (interaction term) used to test the hypothesis pertaining to career development practices was Career development practices X Collectivism (CarDevCol). The results of the moderated hierarchical regression analysis indicate that the impact of collectivism on the relationship between career development practices and affective commitment is negatively significant. The t-value derived from testing in SPSS is -3.416, which is over -2 and therefore collectivism is an accurate moderator of this relationship. The hypothesis H3b is consequently supported. However, contrary to the expectations outlined in 3.8.3 prior to the development of hypotheses H3a and H3b, the ModGraph output (figure 5-4 below) illustrates that collectivism moderates the relationship in the reverse direction to that expected. Indeed the perception of career development opportunities is actually of more importance to employees with high collectivism orientation than low collectivism orientation. As these high collectivism employees perceive high career development options, they exhibit higher affective commitment. Whilst affective commitment does increase for their colleagues of lower collectivism orientation when they perceive high career development opportunities, it does not increase as significantly as for the high collectivism orientated employees.

**H3a:** Perceptions of career development practices will be significantly related to affective commitment.

H3a NOT SUPPORTED

**H3b:** Collectivism will moderate the relationship between perceptions of career development practices and affective commitment.

**H3b SUPPORTED**

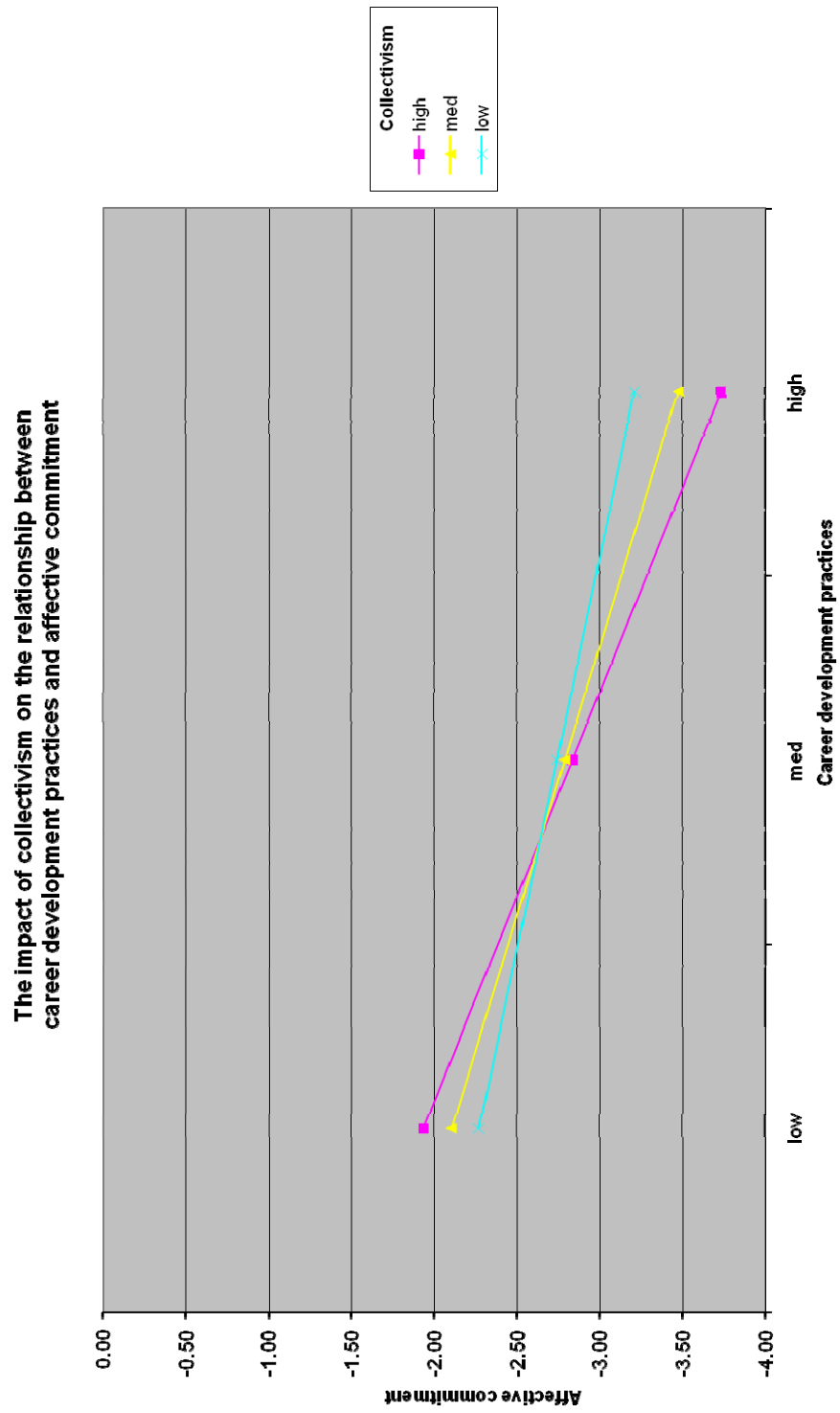


Figure 5-4: The impact of collectivism on the relationship between career development practices and affective commitment

#### **5.4.5 Working conditions**

Finally, the new variable created after the first two stages of moderated hierarchical regression to test the working conditions hypotheses was Working conditions X Collectivism (WorConCol). However using this variable, the results of the regression indicate that the impact of collectivism on the relationship between working conditions and affective commitment is not significant as the t-value is less than -2 (the t-value is -1.181). Therefore collectivism is not an accurate moderator of this relationship and therefore the hypotheses H5a and H6a are supported (feedback and participation in decision making are related to affective commitment). However, as was apparent with satisfaction with benefits, whilst the results of this moderated hierarchical regression analysis are not statistically significant for this factor, the ModGraph result (figure 5-5 below) indicates that hypotheses H5b and H6b may be acceptable at a lower confidence interval. Indeed, the graph clearly shows (although, as intimated, it is not statistically significant) that there is a moderation of the relationship between feedback and participation in decision making (working conditions), and affective commitment. However, this relationship operates contrary to the expectations outlined in 3.8.5 prior to the hypotheses H5a and H5b being developed. Indeed the graphical output shows that employees with a low collectivism orientation, when they perceive that the organization offers high levels of feedback (high perception of working conditions), actually exhibit higher organizational commitment than high collectivism orientated colleagues. For the expectations outlined in 3.8.6 prior to the development of hypotheses H6a and H6b, the graph shows that the relationship operates as predicted: low collectivist employees show greater affective organizational commitment than their high collectivist colleagues, when they are able to participate in decision making (high perception of working conditions).

**H5a:** Feedback will be significantly related to affective commitment.

**H5a SUPPORTED**

**H5b:** Collectivism will moderate the relationship between feedback and affective commitment.

**H5b NOT SUPPORTED**

**H6a:** Participation in decision making will be significantly related to affective commitment.

**H6a SUPPORTED**

**H6b:** Collectivism will moderate the relationship between participation in decision making and affective commitment.

H6b NOT SUPPORTED

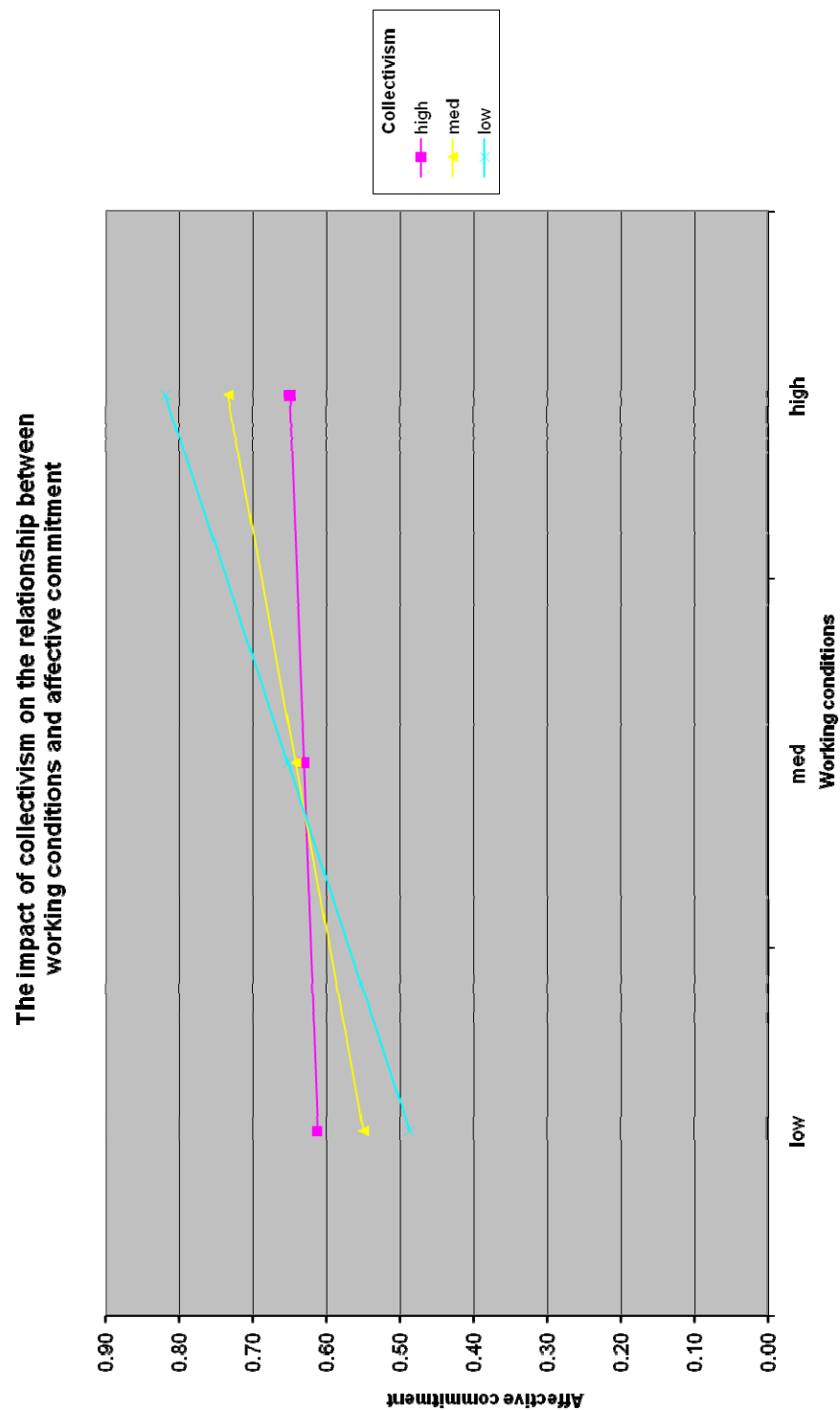


Figure 5-5: The impact of collectivism on the relationship between working conditions and affective commitment

## 5.5 Summary

This chapter analysed and explored the results of the data gathered from the questionnaire. The sample description showed that respondents were 43 percent female and 57 percent male employees of China Airline Co. The average age of the responding employees was 31.2 years and their average tenure in employment at the airline was 6.9 years. Analysis of the data using Cronbach's alpha value resulted in three items being deleted from the analysis to improve reliability. Subsequently after confirmatory factor analysis and testing of average square multiple correlations, a further 6 items were removed from the analysis to improve data validity. Exploratory factor analysis was then applied to the data which allowed the number of variables to be reduced to seven factors. Finally, the hypotheses were tested using moderated hierarchical regression. An interactive term was created for each factor, which was a multiple of the moderating variable (collectivism) with that new factor. Analysis of the hypotheses led to H1a, H2a, H3b, H4b, H5a, H6a, H7b, H8b being supported and H1b, H2b, H3a, H4a, H5b, H6b, H7a, H8a not being supported.

Hypothesis	Result
<b>H1a:</b> Satisfaction with compensation will be significantly related to affective commitment.	Supported
<b>H1b:</b> Collectivism will moderate the relationship between satisfaction with compensation and affective commitment.	Not supported
<b>H2a:</b> Satisfaction with fringe benefits will be significantly related to affective commitment.	Supported
<b>H2b:</b> Collectivism will moderate the relationship between satisfaction with fringe benefits and affective commitment.	Not supported
<b>H3a:</b> Perceptions of career development practices will be significantly related to affective commitment.	Not supported
<b>H3b:</b> Collectivism will moderate the relationship between perceptions of career development practices and affective commitment.	Supported
<b>H4a:</b> Autonomy will be significantly related to affective commitment.	Not supported
<b>H4b:</b> Collectivism will moderate the relationship between autonomy and affective commitment.	Supported
<b>H5a:</b> Feedback will be significantly related to affective commitment.	Supported
<b>H5b:</b> Collectivism will moderate the relationship between feedback and affective commitment.	Not supported

<b>H6a:</b>	Participation in decision making will be significantly related to affective commitment.	Supported
<b>H6b:</b>	Collectivism will moderate the relationship between participation in decision making and affective commitment.	Not supported
<b>H7a:</b>	Perceptions of co-worker support will be significantly related to affective commitment.	Not supported
<b>H7b:</b>	Collectivism will moderate the relationship between perceptions of co-worker support and affective commitment.	Supported
<b>H8a:</b>	Satisfaction with supervision will be significantly related to affective commitment.	Not supported
<b>H8b:</b>	Collectivism will moderate the relationship between satisfaction with supervision and affective commitment.	Supported

*Table 5-6: Summary of hypothesis testing results*

## **Chapter 6 Discussion and implications**

### **6.1 Introduction**

Based on the research analysis identified in chapter 5, this section discusses the significance of these findings. The influence of collectivism on the relationship between rewards and organizational commitment is examined with reference to the new factors previously identified. The theoretical and practical implications of these findings for the management at China Airline Co are then considered. Subsequently, the limitations of this research are reviewed and suggestions are made for further research. Finally, the conclusion explicates the main findings of this research.

### **6.2 The influence of collectivism on the relationship between rewards and organizational commitment**

Using 290 employees of China Airline Co as a sample, this study investigated the influence of culture on the relationship between rewards and organizational commitment in Chinese business. The findings of the research support the assertions of social exchange theory (Haar and Spell, 2004) that employees increase their organizational commitment when the organization meets their expectations with regards to the fulfilment of their individual needs. Furthermore, the research extends the findings of the existing literature by demonstrating that collectivism moderates the relationship between some forms of reward and affective organizational commitment. Indeed the research identified significant negative relationships, moderated by collectivism, between three variables: social support and affective commitment, autonomy and affective commitment, and career development practices and affective commitment. Only two variables, satisfaction with benefits and working conditions were found not to be significantly related to affective commitment, and consequently the relationship between the variable and affective commitment was not significantly moderated by collectivism.

#### **6.2.1 Social support**

The finding that the impact of collectivism on the relationship between social support and affective commitment was negatively significant is in line with previous research. As intimated, employees rely on their co-workers to provide them with both psychological and social support (Ensher et al, 2001) and that this in turn translates into greater levels of affective commitment towards the



organization (Chiaburu and Harrison, 2008). However, although the research found evidence of collectivism moderating the relationship between social support and affective commitment (which led to hypotheses H7b and H8b being supported), the expectation outlined in 3.8.7 that employees with a high collectivism orientation, when they perceive high levels of co-worker support, will exhibit greater affective commitment towards the organization than their lower collectivist colleagues, was not supported by the data. Indeed, the reverse was observed to be applicable, an employee with low collectivism orientation exhibited higher affective commitment (than their high collectivism colleagues) when they perceived social support to be high. This is also contrary to the existing research of Kirkman and Shapiro (1997) and Ramamoorthy and Flood (2002) and suggests that their findings may not be transferable to the Chinese context.

### **6.2.2 Satisfaction with benefits**

The research found that the impact of collectivism on the relationship between satisfaction with benefits and affective organizational commitment was not significant (therefore H1 and H2a being supported) which contradicts the results of some research conducted in other countries (Mottaz, 1988; Loscocco, 1990). However, as indicated in 3.8.1, conflicting results have been found in recent studies, and the findings of this research actually corroborate those of Malhotra et al (2007) who also found no relationship between satisfaction with compensation and affective commitment; indeed, Eby et al (1999) found a negative relationship between these two variables. Furthermore the ModGraph analysis corroborated the findings of Williamson et al (2009) in the US context as it shows that employees with low collectivism are more committed to the organization than their colleagues with high collectivism, when they perceive that they are well compensated and have a high degree of fringe benefits (satisfaction with benefits). In sum, the research findings confirm that the level of pay that is provided by an organization is of greater importance to a low collectivism orientated employee than a higher collectivism orientated employee. The finding of no significant relationship underlines the difficulty in applying existing research findings to the Chinese context. It is also of interest to note that compared to earlier research (Mottaz, 1988; Loscocco, 1990), the more recent research (Eby et al, 1999; Malhotra et al, 2007) has found no evidence of significant relationships between satisfaction with benefits and affective organizational commitment. This may suggest that employee attitudes to benefits are changing as more opportunities are available to them, so the provision of benefits does not necessarily indicate that they will remain committed to the organization.

### **6.2.3 Autonomy**

In line with the existing literature, this research found that the impact of collectivism on the relationship between autonomy and affective commitment was negatively significant; consequently H4b was supported. Indeed the findings corroborate those of Eby et al (1999) and Malhotra et al (2007) and most recently, those of Williamson et al (2009), who found that employees with a low collectivism orientation reported higher levels of affective commitment when they sensed that they had high levels of autonomy. The graphical ModGraph output displays this finding clearly, that affective commitment is greater for low collectivism orientated employees when they perceive high levels of autonomy in their workplace. In contrast, the level of autonomy that is perceived by colleagues with high collectivism orientations does not significantly impact their affective organizational commitment; this research finding has not been reported outside of China. This is possibly due to the fact that existing research has an Anglo-American focus, where, compared with the levels observed in China, it would be unusual to find employees who are highly collectivism orientated.

### **6.2.4 Career development practices**

The research found that the impact of collectivism on the relationship between career development practices and affective commitment was negatively significant and therefore H3b was supported. However, in contrast to the output expected, collectivism was found to moderate the relationship such that career development opportunities were of more importance to employees with high collectivism orientation than low collectivism orientations. Indeed as a high degree of career development opportunities were perceived by these high collectivism orientated employees, they exhibited higher levels of affective organizational commitment. As intimated, for their low collectivism orientated colleagues, although commitment does increase as career development opportunities increase, the change is not as significant. Indeed, although existing research indicates that employees who are provided with career development opportunities should exhibit higher levels of affective commitment to the organization (Meyer and Smith, 2000; Malhotra et al, 2007), the literature has not yet included the influence of collectivism in the analysis. A possible explanation for this outcome in the Chinese context therefore, is that in contrast to their high collectivism orientated colleagues who place great value on career development opportunities, more individualistic, lower collectivism orientated employees in China perceive that they will be able

to develop their careers, regardless of the opportunities to do so presented by their employer. Indeed, high collectivism orientated employees may have less of a natural interest in career development opportunities as they focus on group and company priorities, and take less notice of the career development options that may be available to them. Further research is needed to identify whether this interesting finding is applicable elsewhere in the Chinese context.

### **6.2.5 Working conditions**

Finally, this research found that the impact of collectivism on the relationship between working conditions and affective commitment was not significant. Hypotheses H5a and H6a were therefore supported. Research by Audia and Tams (2002) suggested that the willingness of an employee to accept feedback on their job performance may be affected by their collectivist orientation. Furthermore, existing research in China had indicated that employees with a high collectivist orientation were more willing to accept feedback than their low collectivist counterparts (Bailey et al, 1997). However the findings of this research with respect to feedback were contrary to those expected as the analysis with ModGraph indicated that employees with a low collectivism orientation, when they perceive that the organization offers high levels of feedback (high perception of working conditions), exhibit higher organizational commitment than high collectivism orientated colleagues. A possible explanation for this finding is that in the Chinese context, the concept of social exchange theory operating between the employees and their organization with respect to feedback provision are different to that observed in other studies. Therefore whilst the provision of feedback is theorised to increase affective organizational commitment to a greater degree for high collectivism employees, it may be that these employees are perturbed by feedback on their job performance by their supervisor, and prefer to work without being given such feedback.

For the second aspect of working conditions, participation in decision making, the relationship (although not statistically significant) operated as predicted in the graphical ModGraph output: low collectivist employees showed greater affective organizational commitment than their high collectivist colleagues, when they are able to participate in decision making processes. This finding is in line with existing research which suggests that individuals in different countries perceive participation in decision making quite differently (Yu et al, 2003). Therefore in China high collectivism orientated employees place less importance on participation in decision making than their low collectivism orientated colleagues.

### **6.3 Implications for management at China Airline Co**

This research analysed the influence of culture on the relationship between rewards and organizational commitment at China Airline Co. Indeed as no research has previously been conducted in this context, the results of this study could have useful implications for the management at the airline. The research has shown that employee commitment is affected by their collectivism orientation and the reward system used by the organization. Therefore by understanding their employees better, organizations could use the reward system more effectively to increase their employees' organizational commitment. This work is important as employee turnover increases costs and the turnover rate is comparatively higher in businesses operating in China than in the West. Thus as suggested by Williamson et al (2009), this type of research should enable the airline management to enhance the organizational commitment of their employees using distinguishable rewards which reflect an employee's cultural values.

#### **Social support**

The research confirms that social support through co-workers and supervisors is an important component that develops and maintains affective commitment to the organization. Therefore, when China Airline Co designs its development programmes or implements new procedures in part of the organisation, it should aim to create an environment in which co-workers and supervisors can work together to provide each other with psychological and social support (Ensher et al, 2001). This has been proven to lead to greater levels of affective organizational commitment, at little cost to the organization (Chiaburu and Harrison, 2008).

#### **Satisfaction with benefits**

The research also suggests that satisfaction with benefits (whilst not statistically significant) is an important component of an organizational rewards strategy which can increase an employee's affective commitment. As previous research has shown that compared to other organizational rewards, Chinese employees rank pay highly (Yu et al, 2003; Leininger, 2007), China Airline Co should pay careful attention to the compensation systems it provides for its employees. As employee compensation is normally the most significant cost in an organization, the airline could, by tailoring its reward package to reflect the individual cultural orientation of its employees, ensure that the benefits packages it provides to its employees are suitable to maintain their organizational

commitment. As intimated, turnover in Chinese organizations is high, particularly amongst more senior employees, therefore reducing this turnover by making adjustments to the benefit packages on offer, will over the long term, reduce the airline's costs.

### **Autonomy**

As the research identified that the influence of collectivism on the relationship between autonomy and affective organizational commitment was negatively significant, China Airline Co should give some consideration to the systems by which employees are allowed to determine how they carry out their own work. However, as affirmed by this research, when given autonomy by their organization, high collectivism orientated employees exhibit lower affective commitment to the organization than their low collectivism colleagues (Williamson et al, 2009). Therefore the airline management should not focus too much attention on this intrinsic reward as increasing autonomy for high collectivism orientated employees may actually have little effect on their organizational commitment, and might negatively affect organizational performance (Gomez, 2003).

### **Career development practices**

The research confirms that the impact of collectivism on the relationship between career development practices and affective commitment is negatively significant. The research findings emphasise the importance of organizations like China Airline Co improving the career development opportunities available to their employees and, taking account of the collectivism orientation of the employee, to meet their expectations regarding the development and training opportunities provided (Malhotra et al, 2007).

### **Working conditions**

Finally, although the results were not statistically significant, the research findings nevertheless suggest that China Airline Co may have limited benefit by improving the working conditions of its employees. As previously discussed, although the findings of this research are contrary to existing studies outside of China, these results indicate that increasing the level of feedback on job performance provided to an employee by their supervisor, may not necessarily improve affective commitment to the organization. Whilst research indicates that the provision of feedback increases

affective organizational commitment to a greater degree for high collectivism employees (Earley et al, 1999), the management of China Airline Co may find that their employees prefer to just concentrate on their job, rather than receive what could be either positive or negative feedback by their supervisor. Furthermore, the research indicated that, in line with existing findings, the high collectivism orientated employees of the airline are less concerned about participating in decision making. The implications for management at the airline are therefore that with a more informed understanding of their employees' collectivism orientation, they may be able to provide feedback more appropriately, and encourage them to participate in decision making more effectively, and in doing so, increase their employees' affective organizational commitment.

#### **6.4 Limitations in this study**

These research findings should be interpreted with the recognition of a number of limitations. Firstly, the results of this study into China Airline Co are only generalisable to similar populations throughout China, such as other Chinese airlines or similar large, geographically diverse companies. Indeed existing research has illustrated, that the ownership structure of an organization and the industrial sector it is within, each affect the organizational commitment of Chinese employees considerably (Wang et al, 2004). Therefore further research is required in other industries and businesses in China to determine the generalisability of these findings to other Chinese employees.

Secondly, as the research data is drawn from self-completed survey questionnaires, the direction of causality is difficult to establish. Although the findings of this research are consistent with the hypotheses which were developed from the existing literature that collectivism influences the relationship between rewards and affective organizational commitment, it is possible that the relationship in fact occurs in the opposite direction. This would mean that a more committed employee would evaluate the reward systems of the company more positively, irrespective of their level of collectivism, than a less committed employee. To address this issue, it would be sensible to repeat the research with longitudinal studies in the future.

Finally, common method bias is a potential risk with this form of research, as all variables were assessed using self-report measures in a single questionnaire. However, although establishing if common method bias occurred in the study is difficult, there was considerable variation between

the reward system variables and their correlation with organizational commitment. Therefore it is likely that the respondents answered the online survey questions discriminately and accurately. Furthermore, all existing research into affective organizational commitment utilises the same research methodology, a self-completed questionnaire, as this study. Gaining data on the actual turnover of employees who responded at China Airline Co, and then comparing it to their questionnaire responses would eliminate common method bias. However, using this objective measure to affirm the validity of the data would be difficult, not least due to the ethical considerations involved as the original questionnaire responses would no longer be anonymous.

### **6.5 Recommendations for further research**

To address the issues identified, future research might evaluate the influence of collectivism on the relationship between rewards and organizational commitment in other types of business organization and in different industries, both in China and other Asian countries. Additionally, as intimated, longitudinal studies would help to address the question of causality. As indicated in 4.2, future research might also, with the help of a translator, utilise mixed methods, so that the results of the quantitative statistical tests could be explained with reference to qualitative interviews with selected employees. Finally, analysis of the data using confirmatory factor analysis and structured equation modelling might be appropriate. However, structured equation modelling was not utilised in this research as it is not a requirement of the Master's course and therefore the software, being an add-on to SPSS, is not available to perform this data analysis.

### **6.6 Conclusion of this study**

This study has shown the influence of collectivism on the relationship between rewards and organizational commitment in the context of a large Chinese airline, China Airline Co. Significant negative relationships, moderated by collectivism, were established between three variables: social support and affective commitment, autonomy and affective commitment, and career development practices and affective commitment. However no significant relationships were found when collectivism interacts with two further variables: satisfaction with benefits and affective commitment, and working conditions and affective commitment.

Therefore it is possible to conclude that when applying theories developed in the West to the Chinese context, cultural differences need to be recognised. Consequently, the findings of this research differ in some respects to similar studies conducted outside China. There are also significant managerial implications for China Airline Co which this research has explicated. These findings may therefore assist the airline in improving the affective organizational commitment of its employees and consequently reducing employee turnover and its associated costs.



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† As China Airline Co stated that it wished to remain confidential, all web addresses relating to the company and global airline alliance have been removed from this research.

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## Appendices

### A The design of the questionnaire

*Email to employees at China Airline Co (original English version)*

To: employees@China Airline Co

Subject: Research on rewards and organizational commitment

Dear Employee of China Airline Co,

My name is Stuart Muress and I am currently an exchange student at the University of Nottingham, Ningbo, China. I am conducting research into rewards and organizational commitment in Chinese business and this email has been sent to you as you have been randomly selected by the human resources department of the airline to participate in this research. The research should prove useful for both employees and managers at the airline as it will share your views on organizational policies with the senior management.

Participation in the research is completely voluntary and anonymous. Should you choose to respond, please answer all questions completely and accurately as this will increase the validity of the data. I hope that you will please consider sharing your views so that this research will be comprehensive and produce meaningful results.

The link below provides access to the questionnaire and ensures confidentiality of your responses. The data from the study will only be accessible by me and my tutors at UNNC. The data will be stored securely and anonymously in accordance with the privacy and data protection laws in China and the UK, and the guidelines of the University of Nottingham on research. A copy of the final research will be available on request. You may choose to discontinue and withdraw from the questionnaire at any stage. It should take around 20 minutes to complete.

[Link to questionnaire](#)

Any questions regarding this research should be directed to me ([zx04784@nottingham.edu.cn](mailto:zx04784@nottingham.edu.cn)) or my tutor ([alex.newman@nottingham.edu.cn](mailto:alex.newman@nottingham.edu.cn)). If you decide to partake in the research, please submit the completed online questionnaire by 26<sup>th</sup> June 2009. Thank you very much for your time and assistance in helping to make this research possible.

Stuart Muress, University of Nottingham, Ningbo, China

## SECTION A

### Rewards

This section seeks your opinion on the organisational and social rewards obtained from your job at China Airline Co.

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by clicking the appropriate number from 1 to 5.

1	2	3	4	5				
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree				
1	I am satisfied with the amount of pay I receive for the job I do.			1	2	3	4	5
2	I am satisfied with my pay considering other organizations I know of.			1	2	3	4	5
3	I feel I am paid fairly considering the work I do.			1	2	3	4	5
4	I am satisfied with the fringe benefits package offered by my organisation.			1	2	3	4	5
5	The fringe benefits package in my organisation is as good as other organizations offer.			1	2	3	4	5
6	I feel that the promotion policy in my organisation is good.			1	2	3	4	5
7	There are reasonable opportunities for advancement in my job.			1	2	3	4	5
8	The job allows me to use personal initiative in carrying out the work.			1	2	3	4	5
9	The job gives me opportunity for freedom in how I do the work.			1	2	3	4	5
10	I have freedom to do what I want on my job to meet my work objectives.			1	2	3	4	5
11	I am satisfied with the performance appraisal process in my organisation.			1	2	3	4	5
12	The performance appraisal process in my organisation is fair.			1	2	3	4	5
13	The organisation gives me adequate feedback on how I am performing in my job.			1	2	3	4	5
14	I can influence the decisions of my superior regarding things in my job.			1	2	3	4	5
15	My superior asks my opinion when problems comes up.			1	2	3	4	5
16	I feel it is easy to get job improvement ideas across to my superior.			1	2	3	4	5

17	My co-workers are helpful to me in getting my job done.	1	2	3	4	5
18	I am satisfied with the supportive attitude of my co-workers at work.	1	2	3	4	5
19	Everyone contributes to a team effort within my organisation.	1	2	3	4	5
20	My co-workers and I co-operate more often than we compete.	1	2	3	4	5
21	My supervisor is approachable.	1	2	3	4	5
22	My supervisor helps make my job more pleasant.	1	2	3	4	5
23	My supervisor treats all the workers as his/her equal.	1	2	3	4	5
24	I am satisfied with the technical competence of my supervisor.	1	2	3	4	5
25	I am satisfied with my supervisor's ability to lead me.	1	2	3	4	5
26	I satisfied am with the way my supervisor helps me achieve my goals.	1	2	3	4	5

## SECTION B

### Organisational commitment

This section seeks your feelings on your commitment to your job and to the organization, China Airline Co.

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by clicking the appropriate number from 1 to 5.

1		2		3		4		5		
Strongly disagree		Disagree		Neither agree nor disagree		Agree		Strongly agree		
1	I would be happy to spend the rest of my career with this organisation.					1	2	3	4	5
2	I really feel that this organisation’s problems are my own.					1	2	3	4	5
3	I do not feel a strong sense of belonging to my organisation.					1	2	3	4	5
4	I do not feel “emotionally attached” to this organisation.					1	2	3	4	5
5	I do not feel like “part of the family” at this organisation.					1	2	3	4	5
6	This organisation has a great deal of personal meaning to me.					1	2	3	4	5

## SECTION C

### Collectivism

The questions in this section address your cultural orientation.

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by clicking the appropriate number from 1 to 5.

1		2		3		4		5			
Strongly disagree		Disagree		Neither agree nor disagree		Agree		Strongly agree			
1	The well-being of others is important to me.						1	2	3	4	5
2	If a friend gets a prize, I would be proud.						1	2	3	4	5
3	If a relative were in financial difficulty, I would help within my means.						1	2	3	4	5
4	It is important to maintain harmony within my group.						1	2	3	4	5
5	I like sharing little things with my neighbours.						1	2	3	4	5
6	I feel good when I cooperate with others.						1	2	3	4	5
7	My happiness depends very much on the happiness of those around me.						1	2	3	4	5
8	To me, pleasure is spending time with others.						1	2	3	4	5

## SECTION D

### Your job at China Airline Co

Please respond to the question by clicking one box, unless directed otherwise.

1. Are you in a management position?

1 ☐ Yes 2 ☐ No



2. How long have you worked at China Airline Co? \_\_\_\_\_ years (to the nearest year)

## SECTION E

### Personal characteristics

Please remember that **your responses are completely anonymous**. Please respond to the question by clicking one box, unless directed otherwise.

1. What is your gender?

1 ☐ Male

2 ☐ Female

2. What is your age? \_\_\_\_\_ years

3. Education

Click the category that describes the highest level of education you have completed.

1 ☐ High school certificate

2 ☐ University degree

Please click [submit](#) to send your completed responses to the questionnaire.

Thank you very much for taking the time to complete this questionnaire.

You are a valuable contributor to this research on rewards and organizational commitment.

*Email to employees at China Airline Co (Mandarin translation)*

To: employees@China Airline Co

Subject: 报酬组织承诺

尊敬的先生/女士:

您好!

我是亚力克斯 纽曼。现任职于宁波诺丁汉大学国际商学院。

本问卷旨在于通过在中国外商投资企业员工报酬激励机制和组织效果的调查，期望能为员工和经理带来一定的帮助。我非常希望您能从百忙中抽出时间来参与这次问卷调查。该问卷调查的有效性离不开您的完整参与和填写。

您的参与是完全自愿和匿名的。为确保您回复的机密性，请不要在问卷上填写您的姓名。本问卷严格保密，所得数据仅供学术研究使用。该问卷调查将用您20分钟左右的宝贵时间。

问卷

如您有任何与此次问卷调查项目相关的疑问，请直接联系我本人 (email: [zx04784@nottingham.edu.cn](mailto:zx04784@nottingham.edu.cn) 请直 [alex.newman@nottingham.edu.cn](mailto:alex.newman@nottingham.edu.cn))。

您如果对最终研究结果有兴趣，请联系我。同时，您可以在任何时间选择中止或取消参与问卷调查。

请在2009年6月26号前将填好的问卷放入附上的回邮信封中。

非常感谢您的参与和支持!

宁波诺丁汉大学国际商学院

浙江，宁波

## 第一部分

### 报酬

该部分想征询你对在职公司组织和社会报酬的看法。

请根据您的同意的程度，在相应的选项上画圈。

1	2	3	4	5
强烈不同意	不同意	中立	同意	强烈同意
1	我对我工作的报酬满意			1 2 3 4 5
2	和其他机构相比，我对工作报酬满意			1 2 3 4 5
3	我觉得我的报酬跟付出比例相当			1 2 3 4 5
4	我对工作单位的附加福利套餐满意			1 2 3 4 5
5	单位的附加福利套餐和其他单位的一样好			1 2 3 4 5
6	我觉得自己单位的升职政策很好			1 2 3 4 5
7	我的工作有合理的提升空间			1 2 3 4 5
8	我能使用个人主观能动性开展工作			1 2 3 4 5
9	我在工作中有一定自主权			1 2 3 4 5
10	我能自由安排工作来实现工作目标			1 2 3 4 5
11	我对单位的绩效评估过程很满意			1 2 3 4 5
12	我单位的绩效评估过程是公平的			1 2 3 4 5
13	单位给我关于工作表现的足够反馈			1 2 3 4 5
14	在和工作相关的事情上，我能影响上司的决定			1 2 3 4 5
15	遇到问题时，我的上司会向我征询意见			1 2 3 4 5
16	从上司那里得到和工作改进相关意见是容易的			1 2 3 4 5

17	我的同事帮助我完成工作	1	2	3	4	5
18	我对同事在工作上对我的支持态度满意	1	2	3	4	5
19	单位里每个人都为团队发展做出贡献	1	2	3	4	5
20	在单位跟同事的协助多于竞争	1	2	3	4	5
21	我的上司很平易近人	1	2	3	4	5
22	我的上司协助我更好的工作	1	2	3	4	5
23	我的上司平等对待下级	1	2	3	4	5
24	我觉得上司的技术能力很强	1	2	3	4	5
25	我满意上司的领导能力	1	2	3	4	5
26	我对上司协助我完成目标任务很满意	1	2	3	4	5

## 第二部分

### 组织承诺

这个部分我们想获取工作方面的组织承诺度信息。

请根据您的同意的程度，在相应的选项上画圈。

1		2		3		4		5			
强烈不同意		不同意		中立		同意		强烈同意			
1	我很乐意在这个机构中渡过余下的职业生涯						1	2	3	4	5
2	我把单位的问题当作自己的问题对待						1	2	3	4	5
3	在单位里，我没有强烈的归属感						1	2	3	4	5
4	对这个机构，我没有 " 感情依恋 "						1	2	3	4	5
5	在这个机构中，我没有感到像 " 家庭的一份子 "						1	2	3	4	5
6	单位对我的个人意义重大						1	2	3	4	5

## 第三部分

### 集体主义/传统惯例

该部门为获取文化方向方面的信息。

请根据您的同意的程度，在相应的选项上画圈。

1		2		3		4		5			
强烈不同意		不同意		中立		同意		强烈同意			
1	同事的待遇好坏对我来说是重要的						1	2	3	4	5
2	我会为一个朋友获得奖励而感到自豪						1	2	3	4	5
3	I如果一个亲戚陷入财政困境，我会尽力帮助他						1	2	3	4	5
4	维持团队和谐是很重要的						1	2	3	4	5
5	我不愿意和邻居分享任何东西						1	2	3	4	5
6	和他人合作是件愉快的事情						1	2	3	4	5
7	周围其他人的幸福也是我幸福的源泉						1	2	3	4	5
8	对我来说，和别人共处令人愉快						1	2	3	4	5

## 第四部分

### 单位工作

#### 单选题

1. 请问您是经理级别吗?

1 ☐ 是                      2 ☐ 不是

2. 你在现单位工作时间为 大约 \_\_\_\_\_ 年

## 第五部分

### 个人特征

请根据您的实际情况作出选择。（您的信息是匿名的）

1. 您的性别

1 ☐ 男

2 ☐ 女

2. 您的年龄是 \_\_\_\_\_ 岁

3. 教育

请选择您受教育的程度

1 ☐ 高中毕业

2 ☐ 本科学位

派出[问卷](#)答复

非常感谢您的参与和支持！

**B SPSS output results**

**Rotated Component Matrix<sup>a</sup>**

	Component						
	Affective commitment	Social support	Collectivism	Satisfaction with benefits	Autonomy	Career development practices	Working conditions
AC3	.879						
AC5	.874						
AC1	.860						
AC6	.812						
AC4	.809						
AC2	.706						
SS2		.766					
SS5		.752					
SS3		.747					
SS4		.744					
SS1		.705					
SS6		.586					
CWS3		.518					
CWS2		.401					
CV8			.779				
CV7			.702				
CV2			.687				
CV6			.636				
CV4			.611				
CV3			.525				.464

SC2				.764			
SC3				.735			
SFB1				.590			
SFB2				.440			
A1					.740		
A2					.654		
A3					.632		
CDP1						.745	
CDP2						.692	
WC2		.403					.601
WC1							.589

# Moderated Hierarchical Regression Analysis

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.284	.221		10.324	.000
	TEN	.000	.011	-.002	-.022	.982
	MAN	.023	.098	.014	.231	.817
	GEN	.087	.090	.054	.966	.335
	AGE	.032	.009	.347	3.518	.001
	EDU	.098	.097	.060	1.006	.315



2	(Constant)	.385	.311		1.239	.216
	TEN	.002	.010	.019	.228	.820
	MAN	-.028	.089	-.017	-.314	.754
	GEN	.100	.081	.063	1.240	.216
	AGE	.021	.008	.235	2.614	.009
	EDU	.039	.088	.024	.449	.654
	Autonomy	.148	.073	.131	2.027	.044
	CarDev	.108	.079	.086	1.366	.173
	SocSupp	.136	.087	.110	1.555	.121
	WorCon	.116	.067	.105	1.743	.082
	SatBen	.241	.073	.198	3.306	.001
	RoIClar5	-.025	.090	-.019	-.279	.781

a. Dependent Variable: AffCom6

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371 <sup>a</sup>	.138	.123	.74380
2	.579 <sup>b</sup>	.336	.309	.65996

a. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE

b. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, WorCon, CarDev, SatBen, Autonomy, RoIClar5, SocSupp

- 1 The impact of collectivism on social support/affective commitment - negatively significant

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.284	.221		10.324	.000
	TEN	.000	.011	-.002	-.022	.982
	MAN	.023	.098	.014	.231	.817
	GEN	.087	.090	.054	.966	.335
	AGE	.032	.009	.347	3.518	.001
	EDU	.098	.097	.060	1.006	.315
2	(Constant)	.343	.352		.976	.330
	TEN	.002	.010	.017	.205	.838
	MAN	-.026	.089	-.016	-.288	.774
	GEN	.099	.081	.062	1.218	.224
	AGE	.022	.008	.236	2.620	.009
	EDU	.039	.088	.024	.445	.657
	Autonomy	.147	.073	.131	2.018	.045
	CarDev	.106	.080	.085	1.331	.184
	SocSupp	.131	.089	.106	1.462	.145
	WorCon	.113	.068	.103	1.670	.096
	SatBen	.245	.075	.202	3.268	.001
	RoIClar5	-.030	.092	-.023	-.324	.746
	Collectivism	.021	.084	.015	.251	.802
3	(Constant)	-1.870	1.095		-1.708	.089
	TEN	.003	.010	.028	.334	.739
	MAN	-.022	.089	-.014	-.252	.801
	GEN	.104	.081	.065	1.291	.198
	AGE	.020	.008	.224	2.500	.013
	EDU	.026	.087	.016	.303	.762

Autonomy	.173	.074	.154	2.360	.019
CarDev	.110	.079	.088	1.388	.166
SocSupp	.846	.347	.684	2.440	.015
WorCon	.122	.067	.111	1.810	.071
SatBen	.235	.075	.193	3.142	.002
RoIClar5	-.029	.092	-.022	-.317	.751
Collectivism	.606	.287	.431	2.115	.035
SocSupCol	-.193	.090	-.867	-2.134	.034

a. Dependent Variable: AffCom6

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371 <sup>a</sup>	.138	.123	.74380
2	.579 <sup>b</sup>	.336	.307	.66108
3	.589 <sup>c</sup>	.347	.316	.65686

a. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE

b. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, Collectivism, SatBen, CarDev, WorCon, Autonomy, RoIClar5, SocSupp

c. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, Collectivism, SatBen, CarDev, WorCon, Autonomy, RoIClar5, SocSupp, SocSupCol

#### ModGraph variables

	B	Mean	SD
Main effect	0.846	3.339655	0.862308
Moderating variable (collectivism)	0.606	<b>3.56954</b>	<b>0.794093</b>
Interaction term	-0.193		
Constant	-1.87		

**ModGraph output**

social support

	low	med	high
Collectivism			
high	0.78	0.79	0.79
med	0.68	0.82	0.95
low	0.58	0.85	1.12

- 2 The impact of collectivism on satisfaction with benefits/affective commitment - not significant

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.284	.221		10.324	.000
TEN	.000	.011	-.002	-.022	.982
MAN	.023	.098	.014	.231	.817
GEN	.087	.090	.054	.966	.335
AGE	.032	.009	.347	3.518	.001
EDU	.098	.097	.060	1.006	.315
2 (Constant)	.343	.352		.976	.330
TEN	.002	.010	.017	.205	.838
MAN	-.026	.089	-.016	-.288	.774

	GEN	.099	.081	.062	1.218	.224
	AGE	.022	.008	.236	2.620	.009
	EDU	.039	.088	.024	.445	.657
	Autonomy	.147	.073	.131	2.018	.045
	CarDev	.106	.080	.085	1.331	.184
	SocSupp	.131	.089	.106	1.462	.145
	WorCon	.113	.068	.103	1.670	.096
	SatBen	.245	.075	.202	3.268	.001
	RoIClar5	-.030	.092	-.023	-.324	.746
	Collectivism	.021	.084	.015	.251	.802
3	(Constant)	-1.149	1.157		-.993	.321
	TEN	.003	.010	.026	.311	.756
	MAN	-.017	.089	-.010	-.188	.851
	GEN	.104	.081	.065	1.275	.203
	AGE	.021	.008	.230	2.557	.011
	EDU	.026	.088	.016	.293	.770
	Autonomy	.156	.073	.138	2.133	.034
	CarDev	.115	.080	.092	1.449	.149
	SocSupp	.125	.089	.101	1.396	.164
	WorCon	.110	.068	.100	1.621	.106
	SatBen	.755	.384	.622	1.967	.050
	RoIClar5	-.020	.092	-.015	-.219	.827
	Collectivism	.405	.295	.288	1.369	.172
	SatBenCol	-.135	.100	-.524	-1.354	.177

a. Dependent Variable: AffCom6

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371 <sup>a</sup>	.138	.123	.74380
2	.579 <sup>b</sup>	.336	.307	.66108
3	.583 <sup>c</sup>	.340	.309	.66008

a. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE

b. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, Collectivism, SatBen, CarDev, WorCon, Autonomy, RolClar5, SocSupp

c. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, Collectivism, SatBen, CarDev, WorCon, Autonomy, RolClar5, SocSupp, SatBenCol

#### ModGraph variables

	B	Mean	SD
Main effect	0.755	2.963793	0.85763
Moderating variable (collectivism)	0.405	<b>3.56954</b>	<b>0.794093</b>
Interaction term	-0.135		
Constant	-1.149		

#### ModGraph output

satisfaction with benefits

	low	med	high
<b>Collectivism</b>			
high	0.97	1.11	1.25
med	0.87	1.11	1.34
low	0.78	1.10	1.43

3 The impact of collectivism on autonomy/affective commitment- negatively significant

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.284	.221		10.324	.000
	TEN	.000	.011	-.002	-.022	.982
	MAN	.023	.098	.014	.231	.817
	GEN	.087	.090	.054	.966	.335
	AGE	.032	.009	.347	3.518	.001
	EDU	.098	.097	.060	1.006	.315
2	(Constant)	.343	.352		.976	.330
	TEN	.002	.010	.017	.205	.838
	MAN	-.026	.089	-.016	-.288	.774
	GEN	.099	.081	.062	1.218	.224
	AGE	.022	.008	.236	2.620	.009
	EDU	.039	.088	.024	.445	.657
	Autonomy	.147	.073	.131	2.018	.045
	CarDev	.106	.080	.085	1.331	.184
	SocSupp	.131	.089	.106	1.462	.145
	WorCon	.113	.068	.103	1.670	.096
	SatBen	.245	.075	.202	3.268	.001
	RoIClar5	-.030	.092	-.023	-.324	.746
	Collectivism	.021	.084	.015	.251	.802
3	(Constant)	-2.489	1.139		-2.185	.030
	TEN	.003	.010	.022	.268	.789
	MAN	-.012	.088	-.008	-.141	.888
	GEN	.102	.080	.064	1.268	.206

AGE	.021	.008	.235	2.641	.009
EDU	-.002	.088	-.001	-.026	.979
Autonomy	1.084	.366	.962	2.963	.003
CarDev	.124	.079	.099	1.574	.117
SocSupp	.136	.089	.110	1.535	.126
WorCon	.115	.067	.104	1.715	.087
SatBen	.251	.074	.207	3.377	.001
RolClar5	-.020	.091	-.015	-.223	.824
Collectivism	.746	.290	.531	2.574	.011
AutCol	-.249	.095	-1.101	-2.612	.009

a. Dependent Variable: AffCom6

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371 <sup>a</sup>	.138	.123	.74380
2	.579 <sup>b</sup>	.336	.307	.66108
3	.593 <sup>c</sup>	.352	.321	.65421

a. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE

b. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, Collectivism, SatBen, CarDev, WorCon, Autonomy, RolClar5, SocSupp

c. Predictors: (Constant), EDU, GEN, MAN, TEN, AGE, Collectivism, SatBen, CarDev, WorCon, Autonomy, RolClar5, SocSupp, AutCol

#### ModGraph variables

	B	Mean	SD
Main effect	1.084	3.012644	0.846614
Moderating variable (collectivism)	0.746	<b>3.56954</b>	<b>0.794093</b>



Interaction term	-0.249		
Constant	-2.489		

### ModGraph output

autonomy

	low	med	high
Collectivism			
high	0.76	0.76	0.76
med	0.60	0.76	0.93
low	0.43	0.77	1.10

- 4 The impact of collectivism on career development practices /affective commitment - negatively significant

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.284	.221		10.324	.000
	MAN	.023	.098	.014	.231	.817
	TEN	.000	.011	-.002	-.022	.982
	GEN	.087	.090	.054	.966	.335
	AGE	.032	.009	.347	3.518	.001
	EDU	.098	.097	.060	1.006	.315
2	(Constant)	.321	.353		.908	.365
	MAN	-.023	.089	-.014	-.261	.795

	TEN	.001	.010	.012	.144	.885
	GEN	.096	.081	.060	1.180	.239
	AGE	.021	.008	.236	2.616	.009
	EDU	.036	.088	.022	.409	.683
	SocSupp	.120	.088	.097	1.357	.176
	WorCon	.108	.067	.098	1.607	.109
	Autonomy	.148	.073	.131	2.023	.044
	CarDev	.097	.079	.077	1.218	.224
	SatBen	.245	.075	.201	3.260	.001
	RoIClar4	.011	.086	.009	.133	.894
	Collectivism	.013	.085	.009	.156	.876
3	(Constant)	-3.768	1.246		-3.024	.003
	MAN	-.040	.088	-.025	-.459	.646
	TEN	.003	.010	.029	.355	.723
	GEN	.100	.080	.062	1.246	.214
	AGE	.020	.008	.225	2.541	.012
	EDU	.032	.086	.020	.375	.708
	SocSupp	.117	.086	.094	1.352	.178
	WorCon	.115	.066	.104	1.732	.084
	Autonomy	.188	.073	.167	2.594	.010
	CarDev	1.351	.375	1.081	3.600	.000
	SatBen	.251	.074	.207	3.410	.001
	RoIClar4	.012	.084	.010	.147	.883
	Collectivism	1.097	.328	.780	3.345	.001
	CarDevCol	-.341	.100	-1.488	-3.416	.001

a. Dependent Variable: AffCom6

**ModGraph variables**

	B	Mean	SD
Main effect	0.351	3.390805	0.79057
Moderating variable (collectivism)	1.097	<b>3.56954</b>	<b>0.794093</b>
Interaction term	-0.341		
Constant	-3.768		

**ModGraph output**

career development practices

	low	med	high
<b>Collectivism</b>			
high	-1.94	-2.84	-3.74
med	-2.10	-2.79	-3.47
low	-2.27	-2.74	-3.21

5 The impact of collectivism on working conditions/affective commitment - not significant

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.284	.221		10.324	.000
MAN	.023	.098	.014	.231	.817
TEN	.000	.011	-.002	-.022	.982

	GEN	.087	.090	.054	.966	.335
	AGE	.032	.009	.347	3.518	.001
	EDU	.098	.097	.060	1.006	.315
2	(Constant)	.321	.353		.908	.365
	MAN	-.023	.089	-.014	-.261	.795
	TEN	.001	.010	.012	.144	.885
	GEN	.096	.081	.060	1.180	.239
	AGE	.021	.008	.236	2.616	.009
	EDU	.036	.088	.022	.409	.683
	SocSupp	.120	.088	.097	1.357	.176
	WorCon	.108	.067	.098	1.607	.109
	Autonomy	.148	.073	.131	2.023	.044
	CarDev	.097	.079	.077	1.218	.224
	SatBen	.245	.075	.201	3.260	.001
	RoIClar4	.011	.086	.009	.133	.894
	Collectivism	.013	.085	.009	.156	.876
3	(Constant)	-.889	1.083		-.820	.413
	MAN	-.020	.089	-.012	-.219	.827
	TEN	.001	.010	.006	.067	.947
	GEN	.098	.081	.061	1.208	.228
	AGE	.022	.008	.242	2.681	.008
	EDU	.021	.089	.013	.233	.816
	SocSupp	.130	.088	.105	1.471	.142
	WorCon	.507	.344	.460	1.473	.142
	Autonomy	.160	.074	.143	2.178	.030
	CarDev	.101	.079	.081	1.278	.202
	SatBen	.240	.075	.198	3.197	.002
	RoIClar4	.010	.086	.008	.118	.907

Collectivism	.332	.283	.236	1.174	.242
WorConCol	-.111	.094	-.503	-1.181	.239

a. Dependent Variable: AffCom6

#### ModGraph variables

	B	Mean	SD
Main effect	0.507	3.115517	0.834552
Moderating variable (collectivism)	0.332	<b>3.56954</b>	<b>0.794093</b>
Interaction term	-0.111		
Constant	-0.889		

#### ModGraph output

working conditions

	low	med	high
<b>Collectivism</b>			
high	0.61	0.63	0.65
med	0.55	0.64	0.73
low	0.49	0.65	0.82